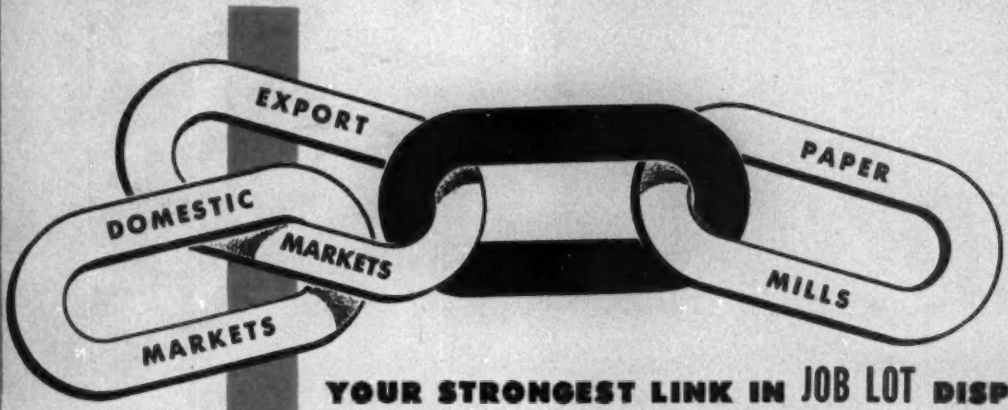
OCT. 26, 1951

WHAT IS NEW IN MATERIALS HANDLING EQUIPMENT? . . . Page 20

BLOEDEL, STEWART & WELCH AND MacMILLAN PLAN MERGER . . . Page 11

Paper TRADE JOURNAL



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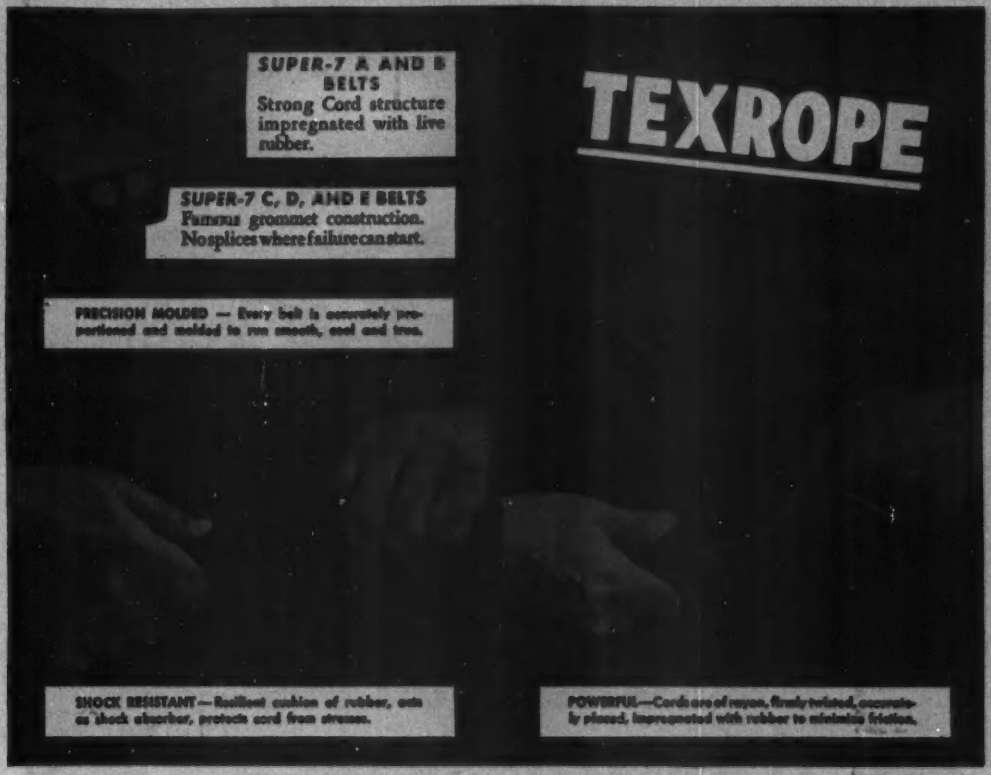
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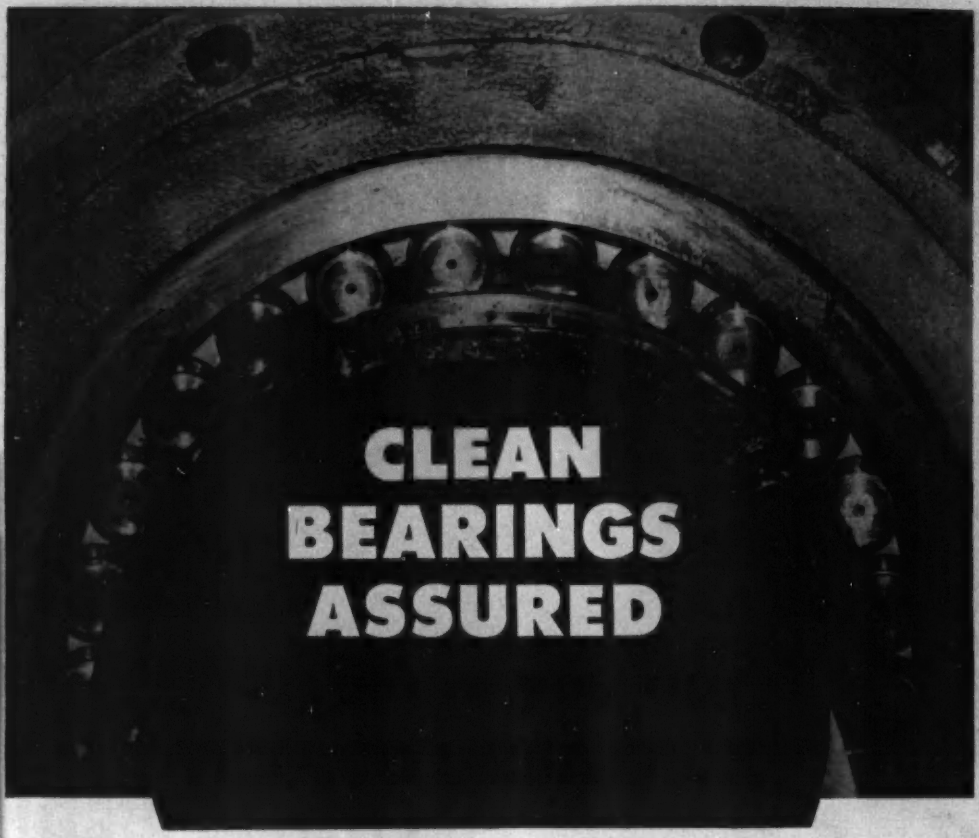

THIS unretouched photo shows a dryer roll bearing that has been lubricated with *Texaco Ursa Oil X***. Note how the rollers have been cleaned. Note the absence of sludge, carbon or accumulation of paper dust. That's the kind of cost-saving cleanliness *you* can expect when old circulating systems are charged with *Texaco Ursa Oil X***. In new machines, bearings *stay* like new.

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ABC

Paper TRADE JOURNAL

ABP

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NEXT WEEK

An informative description of the practical operation of a Kraft bleaching system will be found in "Draft Pulp Bleaching in Four Stages," by Fred W. Bishop, Chief Chemist, Southland Paper Mills.

An interesting article discussing the use of kraft-groundwood mixtures for making various types of board on a cylinder machine is entitled "Characteristics of Pine-Kraft, Pine-Groundwood Combination Cylinder Boards," by John L. McCollough, and Jesse C. Bradbury, Southland Paper Mills.

Number XIV in our maintenance series, entitled "More Service From Power Trucks," by J. A. Draxler, Service Manager of Elwell-Parker Co., contains many valuable suggestions for reducing lost time and maintenance costs of industrial trucks.

REMEMBER THESE DATES

OCT. 29-31: National Foreign Trade Convention, Waldorf Astoria, New York City.

NOV. 26 to DEC. 1: 23rd Exposition of Chemical Industries, Grand Central Palace, New York, N. Y.

DEC. 2-5: American Institute of Chemical Engineers, Annual Meeting, Chalfonte-Haddon Hall, Atlantic City, N. J.

FEB. 17-21: American Pulp & Paper Assn., Annual Meeting, Waldorf-Astoria Hotel, New York, N. Y.

FEB. 18-19: Salesmen's Assn. of the Paper Industry, Annual Meeting and Luncheon, Waldorf-Astoria, New York, N. Y.

FEB. 18-21: Technical Assn. of Pulp and Paper Industry, Annual Meeting, Commodore Hotel, New York, N. Y.

MARCH 16-18: American Institute of Chemical Engineers, Atlanta Biltmore Hotel, Atlanta, Ga.

MARCH 24-26: The National Paper Trade Assn., Annual Meeting, Waldorf-Astoria, New York, N. Y.

MAY 5-8: Third Coating Conference of the Technical Assn., of the Pulp and Paper Industry, at the Sherman Hotel, Chicago, Ill.

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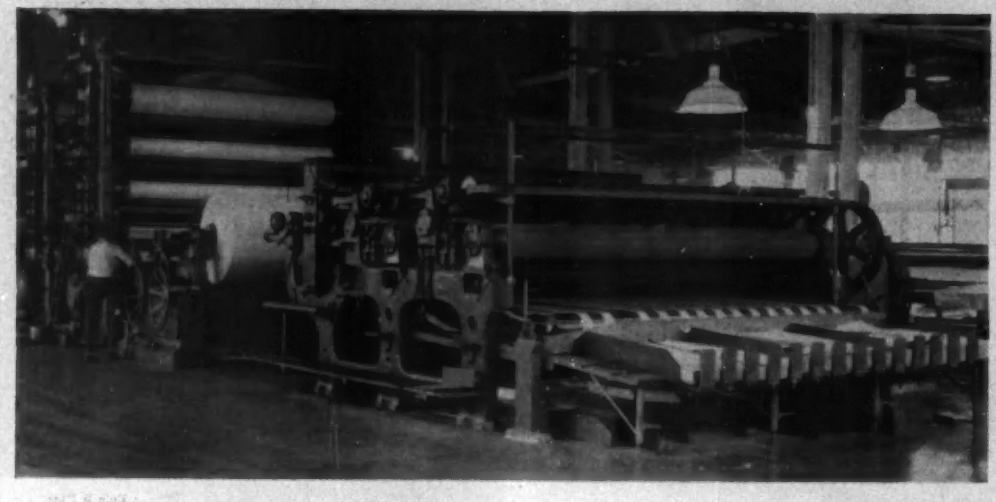

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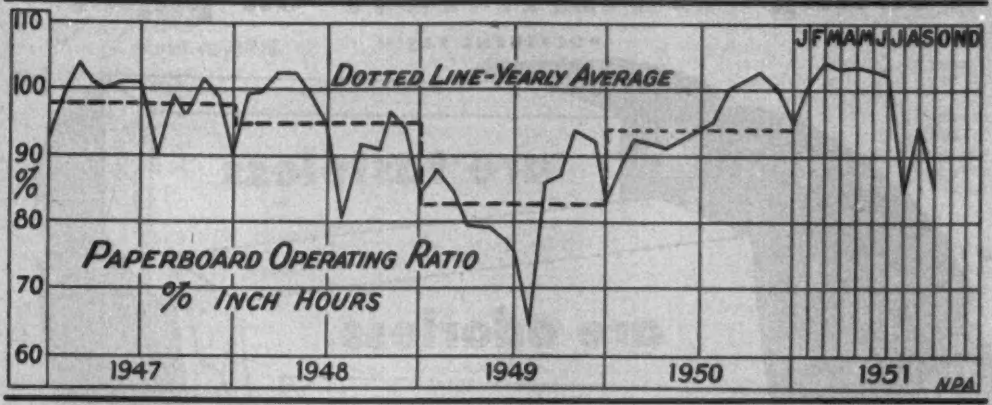

Brief of Important Figures

Source	Production	WEEK ENDING Oct. 13, '51	Sept. 15, '51	Oct. 14, '50
APPA	Paper Production Percent Capacity[a]	100.8	99.9	101.7
	Unbl. Kraft Paper Production Percent	95.9	102.4	97.4
NPA	Paperboard Operating Ratio Percent Inch Hours	90	94	102
		Aug. 1951	**July 1951x**	**Aug. 1950**
APPA	Paper Production[e] (Except Newsprint and Building Papers) ....Tons	925,500	808,000	865,000
	New Orders ....Tons	875,000	848,000	979,000
	Unfilled Orders ....Tons	1,001,800	1,035,765	863,500
	Shipments ....Tons	906,000	796,000	873,500
		Sept. 1951	**[d]Aug. 1951**	**Sept. 1950**
NPA	Paperboard Production ....Tons	816,356	1,112,731	877,945
	New Orders ....Tons	825,249	1,081,321	872,012
	Unfilled Orders ....Tons	458,150	470,841	714,877
	Our Customers Activities Index[1]	**Latest Mo.[c]**	**Previous Mo.[c]**	**Year Ago[c]**
FRS	Manufactures Total Index	223	233	207
	Durable Mfg. Index	264	276	237
	Nondurable Mfg. Index	191	197	182
	Chemical Products Index	302	300	259
	Mfg. Food Products Index	177	165	178
	Printing and Publishing Index	159	172	150
ODC	Magazine Advg.-Printer's Ink Index	368	350	316
	Retail Sales Combined Adjusted Index	347.4	342.6	354.7
	Drug Index	236.6	234.9	221.2
	General Merchandise Group Index	329.6	322.2	369.7
	Grocery and Combination Index	446.2	439.4	410.9
	Prices Index			
BLS	Consumers Price Index[1]	185.5	185.2	172.0
	Wholesale all Commodities[2]	179.5	181.8	162.9
	Wholesale Foods[2]	186.0	186.3	171.4
	Commodities other than Farm Products and Foods[2]	168.7	170.6	151.6
	Wholesale Pulp and Paper[2]	197.2	196.2	159.8
	Purchasing Power of Dollar, Consumers Prices[1]	53.9	54.0	58.1
	General Activity Index			
FRS	Mfg. Production-Worker Payroll	429.4	435.7	367.5
	Unemployment Compensation Initial Claims (M)	1,086	1,118	971
	Miscellaneous Carloadings-Thousands of Cars	1,454	1,937	1,433
	Electric Output (Million KW hr.)	35,435	34,966	31,626
PTJ	Average 32 P & P Common Stocks as of Oct. 20	$39.97	$40.28	$34.25

[1] 1935-39=100 Unadjusted Index
[2] 1926=100
[a] New 6-7 day basis.
[c] For Five Weeks.
[d] For details see APPA Monthly Statistical Summary—August 1951 Estimated Figures
[e] Latest Month Available on Request
[x] Revised figures.

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Paper TRADE JOURNAL

TRENDS

Office of the Paper Trade Journal,
Wednesday, October 24, 1951.

Light thinking, like a little knowledge, is as amusing as a cocktail hour and as constructive. It airs the mind and loosens the tongue in the fashion of a mental carousel. Also it deludes one into the pleasant belief that we may as well drink and be merry for tomorrow there will be new taxes, new controls, more corruption and added confusion. It is concluded that thinking is the job for the analysts and other intellectuals. And a man is known by the markets service he reads.

The sum total of market reaction to current conditions is either blind adherence to the opinion of an economist; stoical acceptance of what is and will be; depression over new taxes; mistrust of decisions on prices and planning; and a general lack of confidence in the future. In simple phraseology: national confidence is built, not legislated. There are too many headaches in Defense planning when the heart hasn't been won to it.

Business Confidence Hit By Tax Bill

Business confidence was dealt a not-unexpected blow by the new income tax bill which becomes effective November 1, as the wave of selling on the stock market immediately indicated. Like a man awaiting the guillotine, business was hopeful to the last.

Probable outcome will be cuts in operating costs, changes in advertising plans, elimination of high-cost production.

Trend to watch will be in advertising with a possible shift in demand for book stock. Also effecting a change in usage will be the new postal rates which boosts second-class—magazines, newspapers, etc.—at the rate of 10 percent for each year for the next three years; and increases the mailing cost of third class—catalogs and other advertising—as of July 1 next to 1½ cents per piece when mailed in bulk.

Book Paper Tight in Supply

Though opinions about the immediate future of business vary by industries and economists, there is no division of opinion about book papers. This market has a large unsatisfied demand for all sorts of book stock, a market which will lift with the world's level of literacy.

Advertising programs are heavy with promotional material. Direct mail has been on the upgrade. Sales of trade books are good. Demands for school books for the lower classes are tremendously expanded by increases in the birthrate since the War and will continue to mount.

Demand of Government agencies for these and other fine papers, particularly of the sulfite group are described as staggering.

From the supply standpoint, stresses are reported in all sorts of bleached sulfites, notably offsets, litho, and duplicator papers. Demand is equally strong for bleached sulfate book, though sulfites bring the strongest pressure. No easing in supply is seen.

Sanitary Tissues and Towels

Though some weakness is reported in towels, facial and toilet tissue, generally speaking this occurs in the so-called "private brand" segment of the industry.

Anxious not to be caught as they were during World War II by shortages of these and similar items, department stores and other outlets stocked up to the limit of warehouse space. Sales promotional efforts are slowing reducing stocks, but softness of this market is apparent.

Adequate stocks of the major producers also are on display in chain and large outlets. Producer figures point to continued gains in civilian consumption of these and napkin stocks since 1925, with accented gains since 1935 as the living standard has improved.

Industrial demand also has climbed with demands of labor for paper towels and other paper services. Current demand is heaviest in areas where war plants are buzzing, such as industrial Connecticut cities. In other sections where automotive and other industries are hit by curtailments, demand for towels and tissues is cut by unemployment.

Midwest distributor inventories of these items point to an average of over 45 days for industrial towels and toilet tissues, some ranging as high as 60, 90 and 120 days' supply.

The future of this market is bright. Barring a deep economic depression—which not even the yarn-dyed pessimist sees—which might curtail home usage and cut demands of industry, the pattern is one of continued growth. Sanitary paper use grows with improvement in living standards. Once established, its use becomes a necessity that people forego only as a hardship.

Bleached Sulfite Pulp Supply

Because of these and other market conditions, major producers of towels, sanitary and other household tissues and napkins stocks have taken steps to assure themselves of an uninterrupted and adequate flow of wood pulps.

Latest plans for integration are those of Scott - Soundview which, if approved by stockholders at the November 5 meeting, will be a move to take from the market 200,000 annual tons of U. S. bleached sulfite pulps.

Scott-Soundview Contracts

Just how the Scott company will handle the Soundview contracts should the merger be approved has not been publicized. Market report has it that all customers will get somewhat less than in 1951, perhaps about 25 percent less.

It is being assumed that in accordance with M-72 and CPR 49, Scott will curtail its purchases of market pulp in the amount it takes from the Soundview output. Proviso to such deliveries would be that OPS permits Soundview a lift in ceiling price to enable them to buy woods in competition with Canadian mills. Ceiling price for U. S. bleached sulfite is $140, for Canadian $160/175.

Lift in Domestic Ceiling Asked

Soundview's application for relief in the ceiling price was made in September, it is reported. Similar request was filed by the other major West Coast producer of market bleached sulfite pulp which has been hit by wood prices and dry weather. Wanted is a lift in the ceiling price to the Canadian level which would permit these mills to buy wood in the open market in competition with Canadian producers. Without such relief, these two mills will be obliged to cut back production during 1952 to five or six days a week for want of wood. Net result would be a loss of 14 to 20 percent of each mill's output of bleached sulfite to market pulp consumers.

Drought and Wood Cutting

Dry weather this past season worked ill for wood-cutting by West Coast mills, both U. S. and Canadian. At a time when they should be stockpiling for winter use, the dry conditions in the woods forced the mills to take their crews out. Cutting has been adequate only to immediate needs, it is stated, and unless wood can be bought in the open market there is small hope that the pulp output can be maintained at capacity. (The woods in these areas are closed by icy weather late in October under normal weather conditions.)

Buying in the open market, however, is in competition with Canadian mills who can offer more money because of their higher ceiling prices. These U. S. mills are asking the OPS for serious consideration of their request for a lift of the U. S. bleached sulfite ceiling to that of the Canadian. Unless this relief is given, the market pulp mills, particularly those holding Soundview contracts, will be cut short of bleached sulfites at a time when the Scandinavian closed water season shuts off those pulps from the market.

Prompt OPS action is urged.

—E. P. N.

Paperboard Production (Tons)*

	Oct. 18 1951	Oct. 6 1951	Oct. 14 1950
Production	211,413	215,312	237,498
New Orders	171,817	287,590	231,419
Unfilled Orders	484,847	528,883	752,556
% of Activity	90	88	102

* Source: NPA.

Early Paris post office. Illustration from Bettmann Archive.

Paper, Printing and the Postal Service

Older than paper, far older than printing is the idea of a postal service. It began in primitive Persia, flourished in ancient Rome. Even through the "Dark Ages," Merchant Guilds carried it on. But a King of France, Louis XIV, in 1653 first extended postal service to the individual. For a sou, the Paris post office would deliver a letter to your private abode.

In America the postal service is inseparably associated with the name and fame of Benjamin Franklin. Under British rule he served 16 years as Deputy and 21 as Postmaster for the Colonies, then in 1775 became the first Postmaster General appointed by the Continental Congress.

Once hand written letters largely made up the contents of the carrier's pouch. But the coming of plentiful paper and the advancement of printing changed everything. Today the United States Post Office handles more than four billion pounds of printed matter, letters and cards each year, as well as seven billion pounds of merchandise wrapped in paper and paper board. Paper, printing and the postal service work together in providing and stimulating the life blood of progress. Supplying those billions of pounds of paper in such infinite variety of purposes is one of the great achievements of the pulp and paper industry.

The dramatic story of paper is told in the sound-and-color film, "Paper—Pacemaker of Progress," and in a book under the same title. Both are presented by F. C. Huyck & Sons as a tribute to the Paper Industry. The book will be sent free upon request.

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HUYCK *Felts*

News of the Week

Paper TRADE JOURNAL

B. S. & W. & MacMILLAN MERGER

Blodel, Stewart & Welch Ltd. will become a wholly-owned subsidiary of the H. R. MacMillan Export Co., if the details of the merger plan submitted to shareholders of the MacMillan organization are approved.

The submitted plan calls for the transfer of Bloedel, Stewart & Welch shares to the MacMillan company in exchange for Class "B" shares of the MacMillan organization at a fixed rate of exchange.

This merger will make the MacMillan organization one of the largest integrated forest operations in the world.

The Bloedel, Stewart & Welch shares are privately held by a small group. The MacMillan assets are shown as $72,912,000, while the assets of Bloedel, Stewart & Welch are shown at $33,423,000, so that the merged organizations would have assets of $106,335,000.

Greater progress towards forest management on a sustained yield basis is stressed as one of the advantages of the proposed merger in a letter to MacMillan shareholders, signed by H. R. MacMillan, chairman of the board.

Outstanding Bloedel shares include 31,100 seven percent cumulative preference of $10 par value; 750 cumulative "B" preference shares of $100 par value and 50,872 common shares without par value.

It is proposed to exchange 44.54596 of MacMillan Class "B" shares for each Bloedel common share; two-fifths of each Class "B" MacMillan share for each Bloedel preference share; four Class "B" MacMillan shares for each "B" preference share of the Bloedel company.

The proposed merger of the long-time rivals among the giants of the B. C. forest industry is seen by lumbermen here as good business for the two companies.

The two firms have been aggressive competitors for 30 years in battles for everything from timber grants to markets. Despite merger negotiations, the Bloedel company recently opposed a MacMillan application for a forest management license in an area where the Bloedel operation felt it had priority.

With approval of the merger, the two rivals will work together as MacMillan & Bloedel Ltd.

Present estimates indicate the move will result in 500 additional jobs as well as almost total elimination of waste and better all-round forest management.

Timber holdings of the Bloedel company are estimated by the management as 308,100 acres, of which 218,800 acres have not been logged.

By combining operations, scrap wood from the MacMillan sawmills on the west coast of Vancouver Island can be fed to the Bloedel pulp mill at Port Alberni. Bloedel waste can go to the MacMillan mill at Nanaimo.

The merger solves a MacMillan problem of log shortage since the Bloedel company has a surplus.

The Bloedel company was founded in 1911 by Julius Henry Bloedel in Washington State. In 1920 he began operations in the Alberni district.

Mr. MacMillan, regarded as Canada's lumber king, will be chairman of the new company, and Prentice Bloedel, son of the founder, of the Bloedel company, will be vice-chairman, along with W. J. Van Dusen of the MacMillan organization.

Albert W. Luhrs

LUHRS SUCCEEDS BECKER

Albert W. Luhrs of South Orange, N. J., was appointed executive manager of the National Paperboard Assn., effective October 18.

Mr. Luhrs was also elected to a similar position with the Fibre Box Assn., effective the same date. He has been connected with both associations in a consulting capacity for many years and succeeds Frederick G. Becker as executive manager. During World War II, he was the Government's chief consultant on containers.

By the move, Mr. Becker is relieved from the pressure of administration but will maintain his connections with both associations in the capacity of executive adviser.

ST. JOE ORDERS PRECIPITATORS

The St. Joe Paper Co., Port St. Joe, Fla., has placed an order with Research Corp. for the construction and installation of two wet bottom electrostatic precipitators, for the handling of gases from two new spray type recovery furnaces, each designed to handle 138,000 cfm at 275-300 degrees Fahrenheit.

The precipitators, which are being included in a new extension to the already existing St. Joe Paper Co. plant, will have a guaranteed collection efficiency of 93 percent for the recovery of sodium salts from waste material.

Instead of collecting dust in hoppers at the bottom of the precipitator and conveying it, in the dry state to black liquor tanks, these new wet bottom units utilize a liquor sump or tank directly under and an integral part of the Cottrell precipitator. Black liquor flows to this wet bottom where the recovered dust is taken up in solution or suspension. During this continuous process, black liquor discharges to the feed going to the disc evaporators.

The wet recovery system does away with all handling of dust in the dry state. It eliminates steam coils and heat insulation formerly needed to prevent condensation in the hoppers, and obsoletes such expensive equipment as hopper vibrators and steam jacketed conveyors.

NEW QUEBEC MILL RUMORED

OTTAWA — There is a strong possipossibility that a new Canadian pulp and paper mill may be constructed in the Province of Quebec by Canadian and European financial interests. It will probably be located on the north shore of the St. Lawrence River. Pulpwood supply would be available in large quantities in some parts of this region for such a project, it is pointed out.

HERTY LABORATORY EXPANDS

The trustees of Herty Foundation Laboratory announce the appointment of Dr. Reavis C. Sproull as technical director. This new appointment broadens the scope of research as Dr. Sproull not only has a pulp and paper background but is a specialist in packaging Fungicides and Chemistry. He comes from the Southern Research Institute, where he has been assistant director in charge of the Applied Chemistry Division.

SEPTEMBER NEWSPRINT REPORT

NEWSPRINT ASSOCIATION OF CANADA, MONTREAL

I. PRODUCTION AND SHIPMENTS in short tons: 2,000 pounds		SEPTEMBER 1951	SEPTEMBER 1950	SEPTEMBER Percent Change	YEAR TO DATE 1951	YEAR TO DATE 1950	YEAR TO DATE Percent Change
1. Canadian Production: including Newfoundland	mo. and year to date	431,082	437,579	— 1.5	4,116,785	3,934,848	+ 4.6
	per working day	17,962	17,573	+ 2.2	17,837	17,064	+ 4.5
	percent of capacity ..	103.2	103.2		102.5	100.2	
2. Canadian Shipments: including Newfoundland	to United States	368,676	423,388	—12.9	3,346,971	3,517,581	+ .8
	to Can. Consumers ..	28,430	30,281	— 6.1	265,344	258,677	+ 2.6
	to Other Markets ...	30,612	31,496	— 2.8	241,311	142,639	+69.2
	total: all markets ...	427,738	485,165	—11.8	4,053,626	3,918,897	+ 3.4
3. U. S. Production:..	mo. and year to date	87,034	86,411	+ .7	832,004	750,063	+ 9.6
4. U. S. Shipments:..	to U. S. Consumers .	87,875	84,860	+ 3.6	815,101	739,911	+10.2
	to Other Markets ...	920	949	— 3.1	6,712	11,669	—42.5
	total: all markets ...	88,795	85,809	+ 3.5	821,813	751,580	+ 9.3
5. U. S. Imports from Europe:	*estimate; see Table 8	*15,500	16,283	— 4.8	145,699	128,482	+13.4

II. CONSUMPTION AND STOCKS in short tons: 2,000 pounds		SEPTEMBER 1951	SEPTEMBER 1950	SEPTEMBER Percent Change	YEAR TO DATE 1951	YEAR TO DATE 1950	YEAR TO DATE Percent Change
6. U. S. Consumption:	estimated total	498,610	488,612	+ 2.0	4,333,508	4,332,970	—
7. North American Stocks:	U. S. Consumers ...	766,738	661,811	+15.9	766,738	661,811	+15.9
	Canadian Mills	152,301	137,141	+11.1	152,301	137,141	+11.1
	U. S. Mills	8,432	9,297	— 9.3	8,432	9,297	— 9.3
	estimated total	927,471	808,249	+14.8	927,471	808,249	+14.8
8. A.N.P.A. Report:.. 525 Newspapers	Consumption	381,437	373,788	+ 2.0	3,315,134	3,314,722	—
	Stocks (tons)	526,584	467,214	+12.7	526,584	467,214	+12.7
	Stocks (days)	41	37		41	37	

Superintendents Meet at Jacksonville

For the second consecutive year the Southern and Southeastern Divisions of the American Pulp and Paper Mill Superintendents Association have combined their efforts in one joint fall meeting. The large attendance of approximately 270 men and 60 women attest to the success of this meeting.

The location of the affair at the George Washington Hotel in Jacksonville, Florida, and the date October 10-12, were well chosen to provide ideal weather.

Although registration began on Tuesday evening, October 9, the meeting was officially opened at 9:00 a.m. on October 10 with an invocation by Rev. Jiles B. Lunsford, pastor of Lake Forest Baptist Church in Jacksonville. This was followed by an "Address of Welcome" by the Mayor of Jacksonville, Honorable Hayden Burns. Response to the welcome was given by Fred Boyce, trustee, or affectionately called the "daddy" of the association. Other Winningham, co-chairman of the meeting, then delivered the opening remarks and turned the meeting over to the other co-chairman, Carl Welte, who conducted the first technical session at which the following papers were presented:

"Slitting and Roll Winding Fundamentals," by E. J. Ward, general sales manager, Cameron Machine Co., Brooklyn, N. Y.

"Problems Relating to Fourdrinier Wire Usage," by A. G. Hose, laboratory director, Lindsay Wire Weaving Co., Cleveland, Ohio.

"Carrier Rope — Experience With Nylon," by R. W. McCormick, assistant paper mill superintendent, National Container Corp., Jacksonville, Fla.

"A Symposium on Rubber Covered Rolls, Pertinent Facts of Interest to Operating Personnel," by James E. Post, sales engineer, Raybestos-Manhattan, Inc., Manhattan Rubber Div., Passaic, N. J.

A joint luncheon was held in the auditorium of the George Washington Hotel at 12:30 p.m. at which Carl Guest, chief chemist of National Container Corp., introduced the principal speaker, B. Harris Robson who has charge of sales promotion for Socony Vacuum Oil Co. in Southeastern U. S. Mr. Robson described methods by which sales methods might be used in production.

The Wednesday afternoon session was conducted by J. J. Thompson, first vice-chairman of the Southern Division, and contained the following papers:

"Kraft Pulp Bleaching in Four Stages," by Fred W. Bishop, chief chemist, Southland Paper Mills, Inc., Lufkin, Texas. Delivered by Jessie C. Bradbury, administrative asst., Technical Service Dept., Southland Paper Mills, Inc., Lufkin, Texas.

"Characteristics of Sheet Made From Pine Ground Wood, Pine Kraft Combination," by John L. McCullough and Jesse C. Bradbury, administrative asst., Technical Service Dept., Southland Paper Mills, Inc., Lufkin, Texas.

Motion Picture, "Some Ideas on Barking in Rotary Drums," presented by W. K. Vaughan, Carthage Machine Co.

"Operation and Maintenance of Lime Sludge Kilns," by W. H. Tock, asst. engineer in charge of sales, Cement and Pyro-Processing Machinery, Processing Machinery Dept., Allis-Chalmers Manufacturing Co., Milwaukee, Wis.

On Wednesday evening the mill suppliers were hosts at a get-together partly which was followed by an excellent buffet dinner provided by National Container Corp. A very good program of entertainment followed the dinner.

The Thursday morning technical session was conducted by Cecil Curry, first vice-chairman of the Southeastern Division. The following papers were presented:

"Wood Preparation Conveyors and Chipping," by M. J. Farris, pulp mill superintendent, National Container Corp., Jacksonville, Fla.

"Electro-Plating and Mill Maintenance," by C. H. Belvin, asst. secretary, Chromium Corp. of America, New York, N. Y.

"Continuous Cooking," by C. L. Durkee, D. J. Murray Manufacturing Co., Wausau, Wis.

"The History and Development of Semi-Chemical Pulping," by Sidney D. Wells, research associate, Institute of Paper Chemistry, Appleton, Wis.

"Round Table Discussion on Semi-Chemical Pulping," by Leonard Growden, operating supervisor of Board Mills, Mead Corporation.

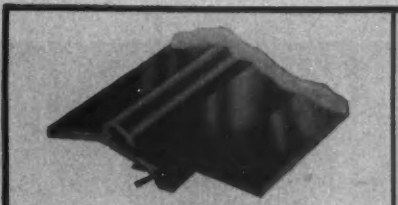
There was no scheduled luncheon for the entire group at Thursday noon but the Pulp & Paper Alumni of the N. Y. State College of Forestry at Syracuse got together for a special luncheon in the Rainbow Room of the George Washington Hotel.

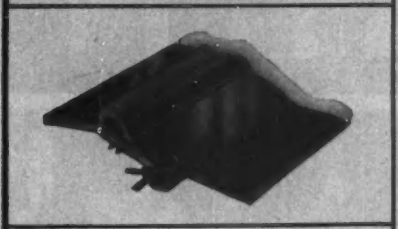
Syracuse Alumni present included: Walter B. Morehouse, Nopco Chemical Co.; E. P. McGinn, PAPER TRADE JOURNAL; Ned Root, Shartle Dilts, Black Clawson; R. H. Stevens, National Container Corporation; Doug Sutherland, Sutherland Refiner Corporation; Carl Welte, Champion Paper & Fibre Co.; Harry Weston, APPMSA; Vernon Woodside Mathieson, Alkali Co.; Vince Waters of Southern Pulp and Paper Manufacturer was a special guest of the group.

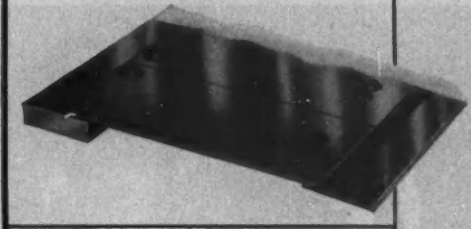
The Thursday afternoon session was conducted by Tom Coldeway, second vice-chairman of the Southern Division. The following papers were presented:

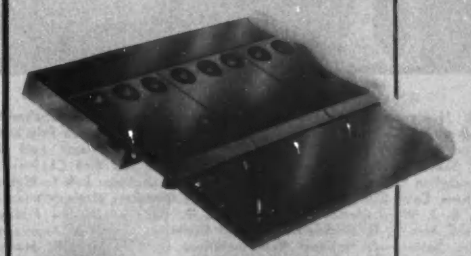
"Cooking of High-Yield Pulp at St. Joe Paper Co.," by Franklin Jones, technical director, Port St. Joe, Florida.

(Pictures on page 14—Story continued on page 18)









Sustained, Maximum Production means Clean Papermaking Rolls

AND THAT MEANS

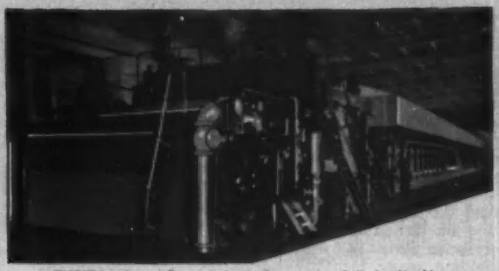
VICKERY DOCTORS

Each one of these Vickery Doctor designs, illustrated at the left, is needed to assure the finest job of doctoring under all kinds of service conditions.

Unequalled experience in the engineering and application of Doctors is back of every Vickery Doctor installation.

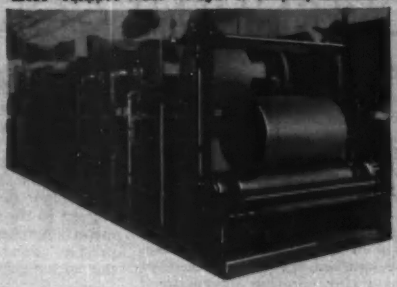
BIRD MACHINE COMPANY
SOUTH WALPOLE, MASS.

Pictures are numbered from left to right, top to bottom. 1. Left to Right. Newly elected chairman J. J. Thompson and 1st Vice Chairman Tom Coldeway, retiring chairman Otha Winningham and Secretary-Treasurer. W. C. Hayes, all of the Southern Division, American Pulp and Paper Mill Superintendent's Assn.—2. Officers of the Southeastern Division American Pulp and Paper Mill Superintendent's Assn. Left to Right. Carl Wolte retiring chairman; Cecil Curry, Chairman- Vinson K. Shannon 1st Vice Chairman, Clyde G. Jones 2nd Vice Chairman; T. R. Barnes, 3rd Vice Chairman; R. B. White, Secretary-Treasurer.—3. Association Officers and Speakers at the Joint Luncheon: Left to Right. Harry Weston, Carl Wolte, Karl Guest, B. Harris Robson, Otha Winningham, Cecil Curry and Jack Thompson.—4. Speakers at the Wednesday A. M. technical Session: Left to Right R. W. McCormick, Carl Wolte, E. J. Ward, James E. Post and A. G. Hose.—5. At the Friday Evening Banquet: Left to Right Mr. and Mrs. R. W. McCormick and Mr. and Mrs. J. E. Sinclair of National Container Corp.—6. American Pulp and Paper Mill Superintendent's Assn. President Glen Sutton and Mrs. Sutton.—7. National Representatives of APPMSA L-R. Harry Weston, Secretary-Treasurer; Fred Boyce "Daddy" of the association, Glen Sutton, President.—8. Speakers at Session on High Yield Pulp: Left to Right. D. G. Sutherland; Tom Coldeway and Franklin Jones.

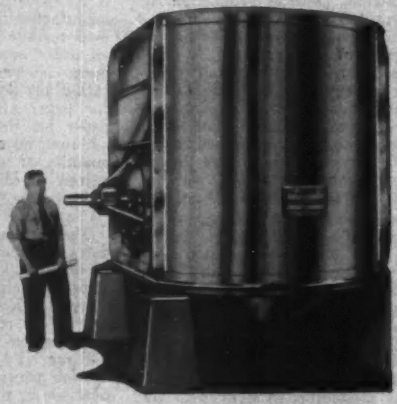


SKF-equipped Pusey & Jones Corporation Cylinder Machine.

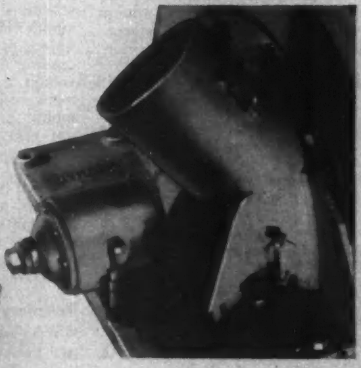
SKF-equipped Frank W. Egan & Company Laminator.



SKF-equipped E. D. Jones & Sons Company "Pulp-Master."



SKF-equipped Carthage Machine Company Multiple Knife Chipper.



why do so many prefer SKF ?

It's pretty hard *not* to buy good bearings today, but SKF is the preferred bearing with many paper-making machinery manufacturers.

There are good reasons why!

These manufacturers know SKF as a reliable, friendly supplier. They've learned to have implicit confidence in the experienced bearing engineering specialists at SKF's headquarters. They appreciate the teamwork of SKF field men who are qualified specialists in the application of bearings to paper-making machinery.

Their customers know the value of the complete maintenance service available to them through SKF's Distributor Organization.

Whatever your product, your engineers and designers can have this helpful SKF teamwork simply by asking for it. 7286

SKF

BALL AND ROLLER BEARINGS

WHY SKF IS PREFERRED BY ALL INDUSTRY

integrity • craftsmanship • metallurgy
tolerance control • surface finish
product uniformity • engineering service
field service

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GOVERNMENT GOSPEL

Ask Sulfur Allocations

WASHINGTON, D. C. — Allocation of available world supplies of sulfur for the fourth quarter has been recommended by the sulfur committee of the International Materials Conference, in view of continuing serious shortages.

The allocation will apply to crude sulfur only, and there has been no allocation of the relatively small supplies of crushed, ground, refined or sublimed sulfur entering international trade. The four exporting countries are the United States, Mexico, Italy and Norway.

Meanwhile, Defense Production Administration this week announced a series of restrictions on sulfur use and a program of conservation.

These restrictions will fall chiefly on use of sulfur to produce sulfuric acid and carbon bisulfide; however, DPA stressed that the shortage is relatively not great, estimated at less than 10 percent, and it was not thought the new limitations would seriously disrupt any major uses domestically.

The restrictions will cut use of sulfur for production of sulfuric acid or carbon bisulfide to 90 percent of each plant's use during 1950 with adjustments for plants supplying certain essential programs; plants using sulfuric acid for production of aluminum sulfate for other than public water treatment; production of synthetic detergents for other than industrial uses, and for production of dyes, lead zinc and titanium pigments, will be held to 90 percent of the 1950 plant use.

The same 90 percent limit will apply for production of sulfonated oils; tall oil and textile finishing, among others.

Use of substitutions will be encouraged under the conservation program.

New Minimum Wage Rates Proposed

Wm. R. McComb, Administrator of the U. S. Labor Department's Wage and Hour and Public Contracts Divisions, announced that he proposes to set new minimum wage rates for the Paper, Paper Products, Printing, Publishing, and Related Industries in Puerto Rico as follows: 60 cents an hour in the daily newspaper division; 55 cents an hour in the paper box division; 45 cents an hour in the paper bag division; 40 cents an hour in the paper board division; and 40 cents an hour in the general division.

Government Orders for Paper M-36 Amended

NPA has amended Order M-36, which provides rules for placing, accepting and scheduling Government or rated orders for paper. The amendments were made primarily to correct certain obsolete provisions of the order.

NPA explained that no charges were made in respect to products or persons affected by the order, nor in the methods of control or the percentage set-asides of reserve production. The amendments are simply changes of a technical and procedural nature.

Section 1 has been amended to make it clear that all persons placing Government or rated orders for paper are subject to the order and not just paper manufacturers. The responsibilities of persons aided in obtaining paper by the order are explained in the new Section 8, "Government Orders."

This section states that no person knowingly shall represent to a paper manufacturer that his order for paper is a "Government order" (which the manufacturer may credit against his own reserve production) unless such an order actually is for the Government. No one may apply or extend a rating or claim benefits under M-36 for paper after he has received the paper for the Government order. In addition, no one shall order a greater quantity of paper than is actually required to fill a rated order or any order on the Controlled Materials Plan "A" products list.

The principal amendment changes dates and methods of reporting paper production and Government orders. Paper manufacturers, while still required to file Census Form M-14-A, no longer will report Government orders, however, on this form. Instead, they will use NPAF-27.

Each paper manufacturer hereafter must file by the last day of each month two reports on Form NPAF-27 showing Government orders he has scheduled for production. One such report shall include all his Government orders scheduled for the next following month; the other shall include all such orders scheduled for the second succeeding month. The manufacturer may submit a revised schedule of Government orders at any time during the month preceding that in which they are scheduled, but not oftener than once a week.

NPA explained that advance knowledge of schedules of Government orders is necessary for the proper administration of M-36 relative to percentages and grades in List "B" of the order and to allow for placing such directives as may be deemed necessary.

Inventory Limitation

NPA announces amendment list 1A of Regulation 1 which specifically limits inventories on paper, paperboard, wet machine board, construction paper and board of other types, in all types and grades. Included in the order are converted paper and board products, all types and grades. The limit is to be the practical working minimum inventory.

Up to this time, paper, paperboard and products thereof, were not included in the inventory limitation of Regulation 1.

Report On Canadian Inventories

OTTAWA—Canadian Government reports that year-end inventories of manufacturers of paper boxes and bags across the nation advanced to $9,658,000 in 1950 as compared with $7,887,000 in 1949 for raw materials, $1,840,000 as against $1,436,000 for goods in process, but declined to $2,740,000 as compared with $2,859,000 for finished products.

However, inventories of pulp and paper mills at the end of 1950 declined to $143,691,000 for raw material stocks as against $151,823,000 at the end of 1949 and dropped to $7,423,000 as against $10,472,000 for finished products, though goods in process stocks in pulp and paper mills rose to $5,353,000 in 1950 as against $3,018,000 in 1949.

Inventories of roofing paper manufacturers showed a generally downward trend, with stocks of raw materials in 1950 falling down to $1,681,000 as against $2,140,000 in 1949, goods in process down to $336,000 in 1950 as against $526,000 in 1949, and finished products amounting to only $1,880,000 in 1950 compared with $2,591,000 in 1949.

Miscellaneous paper product inventories among Canadian manufacturers increased in value to $13,139,000 at the end of 1950 as against $10,618,000 in 1949 for raw material stocks and reached $2,168,000 as against $1,631,000 for goods in process, with inventories of finished products decreasing to $4,423,000 in 1950 as against $6,475,000 in 1949.

All reports of stocks of finished products refer only to stocks in plants. Though no figures are given for inventories in warehouses in preceding year, report shows such stocks of finished products in warehouses in 1950's year-end included $236,000 for manufacturers of paper boxes and bags, $1,785,000 for pulp and paper mills, $371,000 for roofing paper manufacturers, and $1,493,000 for manufacturers of miscellaneous paper products.

Trading inventories of paper box and bag manufacturers across Canada dropped to only $84,000 at end of 1950 as against $110,000 in 1949; pulp and paper mills rose to $2,300,000 against $796,000; roofing paper manufacturers advanced sharply to $347,000 as against $111,000, and miscellaneous paper products manufacturers dropped to $185,000 compared with $432,000.

Government report states that year-end inventories in the paper box and bag industry totaled $14,558,000 in 1950 as against only $12,292,000 in 1949 but such inventories of pulp and paper mills dropped to a total of $160,552,000 in 1950 as against $166,109,000 in 1949. Total inventories at year-end of 1950 for roofing paper makers fell down to $4,615,000 as against $5,368,000 in 1949 but advanced to $21,408,000 in 1950 as against $19,156,000 in 1949 for manufacturers of miscellaneous paper products.

Wyandotte Chemicals

REG. U. S. PAT. OFF.

DEVELOPMENT NEWS

Carbose I Highly Effective in Surface Applications

Carbose I can be conveniently applied from water solution to paperboard as it passes through the calendar stack. The solution, drying rapidly, forms a well-bonded surface film on the paper. This film retards the penetration of hydrophobic or oily materials such as inks, grease and wax.

Wallboard Applied to wallboard and other porous boards, Carbose I solutions reduce the penetration of inks in subsequent treatments. This saves time and materials.

Specialty Bags In the coating of paper for popcorn and other specialty bags, Carbose I may be added directly to the starch solution used. Recommended starting concentration is 5 to 15% of Carbose I, based on the weight of the starch.

Patent-coated Boxboard Mill evaluations show that a 1.5 to 3% solution of Carbose I applied to patent-coated boxboard materially improves the gloss of ink. There are no attendant difficulties in subsequent printing and sealing operations.

Light Boards Carbose I effectively reduces the curl on light boards. For this purpose, a water-solution of 0.75 to 1.5% Carbose I applied at the calendar stack is sufficient.

Folding Boxboard For folding boxboard for the manufacture of waxed cartons, a 1 to 2% solution of Carbose I, applied to both sides of the paper, is recommended. This reduces the amount of wax required. It also improves brightness retention—brightness of treated boxboard dropping less than 1%, compared to a loss of about 10% for non-treated board.

Since Carbose I reduces the light transmission of paper, it is a valuable additive to opaque-type wax papers.

Jute Liner The use of Carbose I for increasing the bursting strength of jute liner has been extensively evaluated by many mills. Results vary, with reported increases up to 20%. In many cases, the use of Carbose I permits the increase of machine speed without the usual decrease in the bursting strength of the liner.

New Specialized Grade of Sodium CMC Proves Effective in Many Papermaking Applications

Carbose I Valuable in Beater Applications

When added to the beater, Carbose I's excellent suspending and dispersing properties help improve subsequent sheet formation. Best effect is obtained when Carbose I is added at the beginning of the beating period.

In extensive laboratory tests, Carbose I has shown promise in improving filler retention. The addition of only 0.5% Carbose I (based on the weight of the pulp) at the start of the beater run increased the retention of calcium carbonate by sulfite pulp about 2.5 times.

Carbose I Available in Quantity and Low in Price

In these uncertain times, it's to a user's advantage to have a steady source of essential materials. This helps him maintain both the volume and quality of his production. Carbose I is available in quantity and at competitively low price.

Carbose* I, recently developed by Wyandotte, is a technical grade of Sodium CMC manufactured under controlled conditions for consistent uniformity. Closely related to cellulose in chemical nature, Carbose I has been found highly effective in papermaking applications. Tests and reports from users reveal that it does an excellent job in both surface and beater applications.

Benefits range from product improvements to processing savings in time, trouble and money. Consensus of opinion is that there are many other untapped possibilities for its profitable use in the paper field, and Wyandotte's Development Department is receiving requests for samples that indicate more than ordinary interest in this new synthetic. Carbose I is in good supply at a competitively low price.

Send Coupon for Sample—Test It Yourself!

*REG. U. S. PAT. OFF.

Wyandotte REG. U. S. PAT. OFF.

DEVELOPMENT DEPARTMENT, PT-10

WYANDOTTE CHEMICALS CORPORATION, Wyandotte, Michigan

Please send me further information and a sample of Carbose I.

Name_____

Company_____

Address_____

City_____ State_____

May Rule Against Price Agreements

OTTAWA — Canadian pulp and paper industry is facing the proposal of the Canadian Government to introduce legislation in this session of Parliament which would ban the practice of manufacturers to attempt inducing distributors to resell their products at a fixed or minimum price. Price cuts are anticipated as a result and an increase in sales promotion stunts through the lowering of prices at the will of retailers is expected, with the possibility of a price war not being ruled out.

Wage Boost for B. C. Workers

OTTAWA — The British Columbia conciliation board's recommendation of 16½ percent boost, minimum 22, an hour, for some 4,000 pulp and paper workers will raise the base rate to $1.40. A 40-hour week will also go into effect for such workers next July.

Unorganized forest workers in Quebec will get 10 percent boost which still will leave their pay 25 percent below the union scale. Typical rates before the boost included: camp cooks, $6 a day; stable workers, $4.50; and choppers, $5.10.

Paper Profits Show Decrease

WASHINGTON, D. C. — Paper and allied products corporations showed profits after taxes three percent below those reported for the first quarter, in the second quarter of 1951, the Federal Trade Commission reported this week.

CPR 88 Kraft Paper

Issued October 24, effective October 29, covers with a dollars and cents ceiling the seven major grades produced by southern and western mills.

	Base Price Cut
Wrapping paper, counter rolls	$7.75
Butchers paper, counter rolls	8.25
Grocers, variety bag, mill rolls, 26 inches up	7.50
Shipping sack, mill rolls 26 inches up	7.75
Gumming, 22 inches min. dia.	8.00
Asphalting, mill rolls, 24 inches min. dia.	7.75
Envelope, mill rolls, 26 inches min. dia.	9.25

All ceilings based on 50 lbs. weight and up except envelope which is 20 lbs. and up. F.O.B. mill plus $10 freight allowed.

Northern and convertor mills may use the ceiling in effect during January 25 to February 24, 1951, or CPR 22 prices, if pulp is calculated at CPR 49 ceiling levels.

JACKSONVILLE MEETING

(Continued from page 12)

Motion Picture, "Car Loading," presented by Stan Brown and Joe Beckman, Signode Steel Strapping Co., Chicago, Ill.

"Hot Stock Refining," by Douglas G. Sutherland, vice-president, Sutherland Refiner Co., Trenton, N. J.

"Pre-Refining Sulphate Pulp," by Stewart Saunders, paper mill chemist, North Carolina Pulp Co., Plymouth, N. C.

On Friday morning at 9:00 a.m. the two divisions held separate business meetings at which time the officers for the coming year were elected. Newley elected officers are shown below.

Southeastern Division

Chairman, Cecil B. Curry, National Container Co.; 1st vice chairman, Vincon K. Shannon, Mead Corp.; 2nd vice chairman, Clyde G. Jones, Ecusta Paper Co.; 3rd vice chairman, T. R. Barnes, Champion Paper & Fibre Co.; Sec.-Treas., Robert White, Mead Corp.

Southern Division

Chairman, J. J. Thompson, Southland Paper Co.; 1st vice chairman, Tom Coldeway, St. Joe Paper Co.; 2nd vice chairman, R. W. Burnett, Crossett Paper Mills, Inc.; 3rd vice chairman, Charles McCarthy, Southern Paperboard Co.; sec.-treas, Jesse C. Bradbury, Southland Paper Mills, Inc.

It was decided by both divisions to defer the question of a joint meeting in 1952 for decision until a later date.

Immediately after the close of the business meetings at 9:45 a.m. buses departed for the three mill tours as follows: Hudson Pulp & Paper Co., Palatka, Fla.; Container Corp. of America, Fernandina, Fla. and National Container Corp., Jacksonville, Fla.

After being shown through the mills the visitors were guests of host mills for lunch after which they returned to the George Washington Hotel.

At 6:15 p.m. Friday evening both ladies and men were guests of the mill suppliers again at a cocktail party. After a thoroughly enjoyable get-together the group moved to the auditorium for the annual banquet. Head table guests included officers from both divisions as well as members of the national association, including Glen Sutton, national president APPMSA; Harry Weston, sec. APPMSA; Fred Boyce, past president and trustee APPMSA. Principal speaker at this dinner was Dr. J. Hillis Miller, president of the University of Florida.

Past chairmen certificates were presented to Carl T. Welte and Otha Winningham by Fred Boyce.

Golf and door prizes were presented by L. L. "Buster" Griffiths.

The final affair of the meeting was a dance from 9:00 p.m. to about 2:00 a.m.

The following committees were responsible for the success of the meeting.

Convention Committee

Otha Winningham, general chairman; Entertainment Committee, Carl Welte, chairman, Cecil B. Curry, J. J. Thompson, Tom Coldeway; Hospitality Committee, George Witham, co-chairman, Harry Hulmes, Co-Chairman, Hank Jones, George Hardaker; Program Committee, Otha Winningham, Co-Chairman, Carl Welte, Co-Chairman, W. C. Hayes, Clyde Jones; Golf Committee, L. L. "Buster" Griffiths, Jr., Co-Chairman, Karl Guest, Co-Chairman, D. J. Brett, Harry Hulmes.

Ladies Program

In addition to the many joint affairs, an excellent program was provided by the ladies committee which included: Mrs. Otha Winningham, Chairwoman; Mrs. W. C. Hayes, Mrs. J. A. Sinclair, Mrs. C. B. Curry, Mrs. R. W. McCormick, Mrs. R. H. Stevens.

The program included Bingo in the George Washington auditorium on Wednesday afternoon, followed by the joint get-together, Buffet Dinner and entertainment on Wednesday evening. On Thursday the ladies took a trip to St. Augustine, Fla., stopping en route to visit an alligator farm and Marineland. Luncheon was at the Dolphin Grill, Marineland. Friday morning was reserved for shopping, followed by lunch at the "Lobster House."

On Friday afternoon, buses took the ladies on a sightseeing tour, returning in time to prepare for the joint cocktail party and banquet.

MAINE-N. H. TAPPI MEETS

Professor Kimball, University of Maine, discussed a proposed course in the use of statistical quality control methods in the pulp and paper industry to be conducted in a ten-day period, next summer. Those in attendance will obtain their company's reaction to the proposed new course.

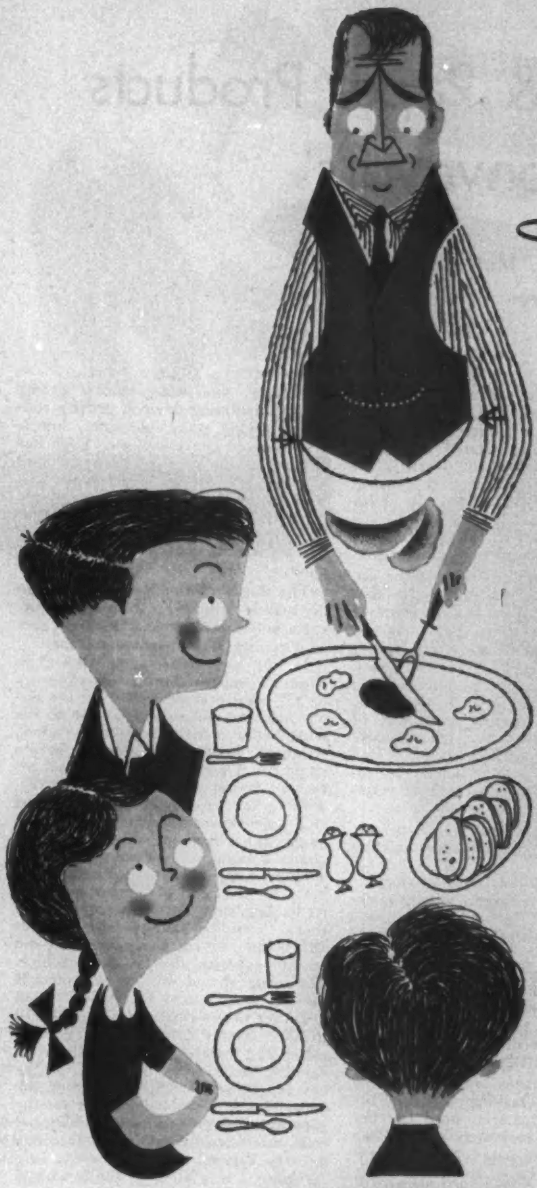
The Friday meeting was based on the Basic Principles of Statistical Quality Control with Warren R. Purcell, Brown Co., pointing out in his talk, "Facts vs. Opinions," that decisions should be based on the accumulation of concrete facts, leading to a more proper decision, rather than being based on individual opinions.

Arthur Bender, Jr., Delco Remy Div., General Motors Corp., talked on "Probability," using dice and an entertaining machine to illustrate the the fact that in the so-called law of averages there is a certain probability of operations performing in a random sort of way, that in any operation there is the possibility of a certain amount of variation, over a period of time.

As to the interpretation of facts, speakers included F. L. Riley, Brown Co., on "The Applications of Statistical Methods in the Pulp Mill"; H. W. Cobb, S. D. Warren Co., on "Applications of Statistical Methods on the Paper Machines"; and R. T. Trelfa, Hercules Powder Co., on the "Applications of Statistical Methods in the Coating Plant."

Paul M. Schaffrath, Oxford Paper Co., talked on the "Applications of Statistical Methods to Research."

The basis of the panel discussion was a series of written questions arising from the formal papers. Panel members included H. W. Cobb, and J. F. Langmaid, Jr., both of S. D. Warren Co.; Prof. Spofford H. Kimball, University of Maine; Warren R. Purcell and Fred Riley, both of Brown Co.; and Paul M. Schaffrath, Oxford Paper Co.



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Stainless is a name given to a broad list of grades and finishes—therefore, careful selection of the best available materials for your job is of prime importance. Here Crucible, a pioneer in the development of stainless steels, can help you get the most out of your share of stainless stocks through the unparalleled experience of our metallurgists and stainless fabricating specialists.

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Handling Pulp & Paper Products with Conveyors*

W. R. McNally

Pulp & Paper Industry Engineer, Link-Belt Co., Chicago, Ill.

The pulp and paper industry has accepted the challenge of unparalleled demand for its products with a maximum use of existing facilities and a tremendous expansion program. In spite of this boom, production costs are increasingly important in the face of price controls; and a profitable operation requires careful analysis of each item contributing to those costs.

Production has been defined as materials in motion. There are two motions involved—Processing Motion and Handling Motion. Processing Motion adds value to the product; Handling Motion simply adds cost.

The greater part of indirect labor in most industries is engaged in moving and handling materials. Another important fact to consider is the surprising amount of direct labor that is engaged in this handling of materials.

Few manufacturers realize or appreciate the tremendous amount of time and money used daily merely to move material, or, to use a generally accepted term, for "materials handling." In foundries, for instance, it has been determined that from 150 to 200 tons of material are handled to produce one ton of castings. It has been suggested that a fair average ratio for all manufacturing industry would be at least 50 to 1.

There probably never has been a time when handling of materials has been so important to all industry. Certainly the stakes have never been higher, considering the soaring labor costs, shortages of experienced and physically fit manpower, and the need for more effective use of existing plants. All of these conditions are intensified by the increasing demand for greater production.

Potential economies to be gained by the use of modern handling methods are more widely accepted. A recent publication by the American Iron & Steel Institute starts out with the statement, and I quote, "In recent years, it has been generally recognized that improvement in materials handling techniques offers one of the most effective means of bringing about operating cost reductions." (End of quote.) Later it is stated that from 60 percent to 90 percent of all direct labor man hours involved in making steel are related, either directly or indirectly, to some form of materials handling. A study of the paper industry might well show similar figures.

To give another example of the importance of the materials handling problem, let us take a recent report of a British "productivity team" visiting the United States to study industry (I quote): "In America, materials handling is regarded as a major factor in the cost of living. Highly skilled attention is given to the movement of materials and thus has led to more efficient production techniques." (End of quote.) They then listed the advantages of modern methods of materials handling, among which were:

1. Reduced indirect labor costs
2. Increased capacity of existing buildings
3. Increased turnover of product
4. Reduction of fatigue among workmen
5. Conservation of skilled productive labor
6. Reduced cost of transportation
7. Greater industrial safety
8. Improvement in attitude of workmen, since they operate mechanized equipment rather than doing hard manual labor.

These advantages apply to every phase of paper making — from the source of raw material until the finished product leaves your mill. When finished pulp and paper must be handled, handling costs stand out—quite clearly. These products are completely processed, and additional handling motions cannot possibly increase their value. They can only add to their cost.

With properly designed and applied materials handling equipment for taking care of these necessary movements, reduction of these costs can be achieved.

There are many methods and devices available to work on this reduction of costs, including cranes of various types, monorails, trucks, tiering and manipulating devices, gravity roller conveying units, elevators, lowerers, powered conveyors, etc. Each has its proper application and, in making your studies of your own mill, each type of conveying equipment should be considered in the light of its advantages and as to how it would fit the physical layout of your particular plant.

The illustrations included herein apply mainly to powered conveyors, lowerers and elevators, and illustrate specific applications in existing plants.

In the particular plant shown in *Figure 1*, rolls of high grade paper up to 72" long are handled from the paper machine and calender room to the floor below where they are weighed, wrapped, headed and stored before shipment. These rolls are conveyed between floors quickly, economically, without damage, by a motor-operated skip type lowerer. Equipped with a single finger-type tray, this device occupies a minimum of floor space and is suitable for any height. You can see here the head end of the lowerer with its loading ramp in the paper machine room. A similar ramp is located about 28" below this in the calender room on the opposite side of the machine. The scale shown on the left records the net weight, and the dolly is used to center the roll before it is delivered to the lowerer tray. A lift gate is raised and lowered automatically when handling rolls from this side. If the lowerer is set for loading from the opposite side, a rubber bumper on the gate retards the roll and additional rolls can accumulate for later entry into the system.

Figure 2 is a view of the head end of the lowerer from the calender room side, showing the safety gate raised and a roll on the tray ready to be lowered to the floor below. Please note that the drive machinery is up out of the way and that the supporting structure occupies a minimum of space.

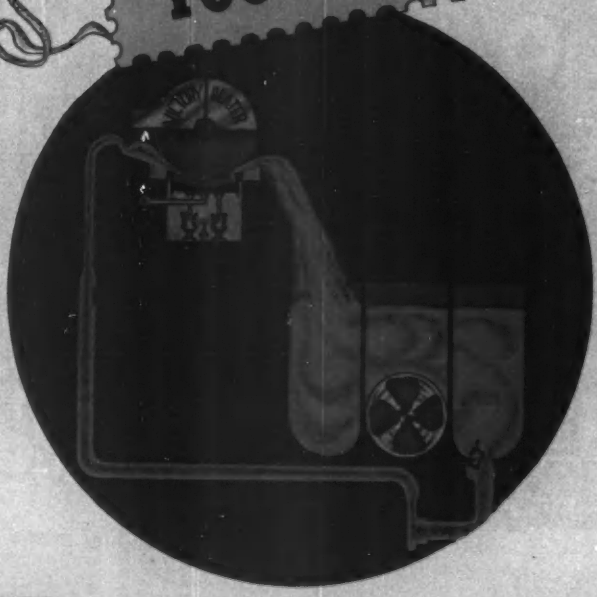
Figure 3 is a view of the foot end of a lowering machine. Shown in the background is a roll of paper resting on finger-type lowering tray, ready to be gently discharged to the ramp by rubber-faced unloading fingers.

* Presented before the Spring Meeting of Southeastern Division of the American Pulp & Paper Mill Superintendents Ass'n in Richmond, Va.

Tailored to fit YOUR PLANT

EXCLUSIVE FEATURES OF THE VICTORY BEATER

1. *Controlled Flow — uniform, positive fibrillation*
2. *Pressurized bedplates*
3. *Absolute control up to 40 tons bedplate pressures*
4. *Centralized bedplates assure 100% roll-bedplate contact*
5. *Highest effective inch cut potential*
6. *Horizontal roll oscillation makes bars self-honing*
7. *Lowest maintenance cost*
8. *Tailored-to-your-plant, low-cost installation*
9. *Spherical anti-friction roller bearings*
10. *1000 gallons per minute capacity*
11. *Highest quality, high tonnage production*
12. *All-time record for continuous production!*



VICTORY BEATERS are made in two styles: (a) Single Roll units for handling batches as small as 500 pounds. (b) Multi-Roll units with two, three or more rolls for treating 100, 150, 200 or more tons per day on a continuous production basis.

Investigation of the versatile record-breaking VICTORY BEATER is a must! Write, wire or phone today for Booklet P.T. 1051.

NO MATTER what your physical plant limitations, stock treating and production requirements may be, the *Controlled Flow* VICTORY BEATER* is "tailored" to meet them better than any similar refining equipment in the world!

Unique, out-of-tub design permits low cost installation below, above or on same level with tubs and holding chests. One, two, three or more rolls may be quickly installed *without costly plant alterations*, to produce any desired fibre treatment on a high quality, high tonnage, basis.

*Patents issued and pending.

THE NOBLE & WOOD MACHINE CO.

Paper Mill Machinery

HOOSICK FALLS • NEW YORK • U.S.A.

Mid-West: Bonningen Engineering Sales • Vicksburg, Mich. West Coast: Don E. Charles Agency • 706 Jones Bldg. • Seattle 1, Wash.

The paper rolls are turned 90 degrees on the turntable in the foreground, centered on the transverse dolly and rolled beyond, to the left, for the wrapping and heading operations.

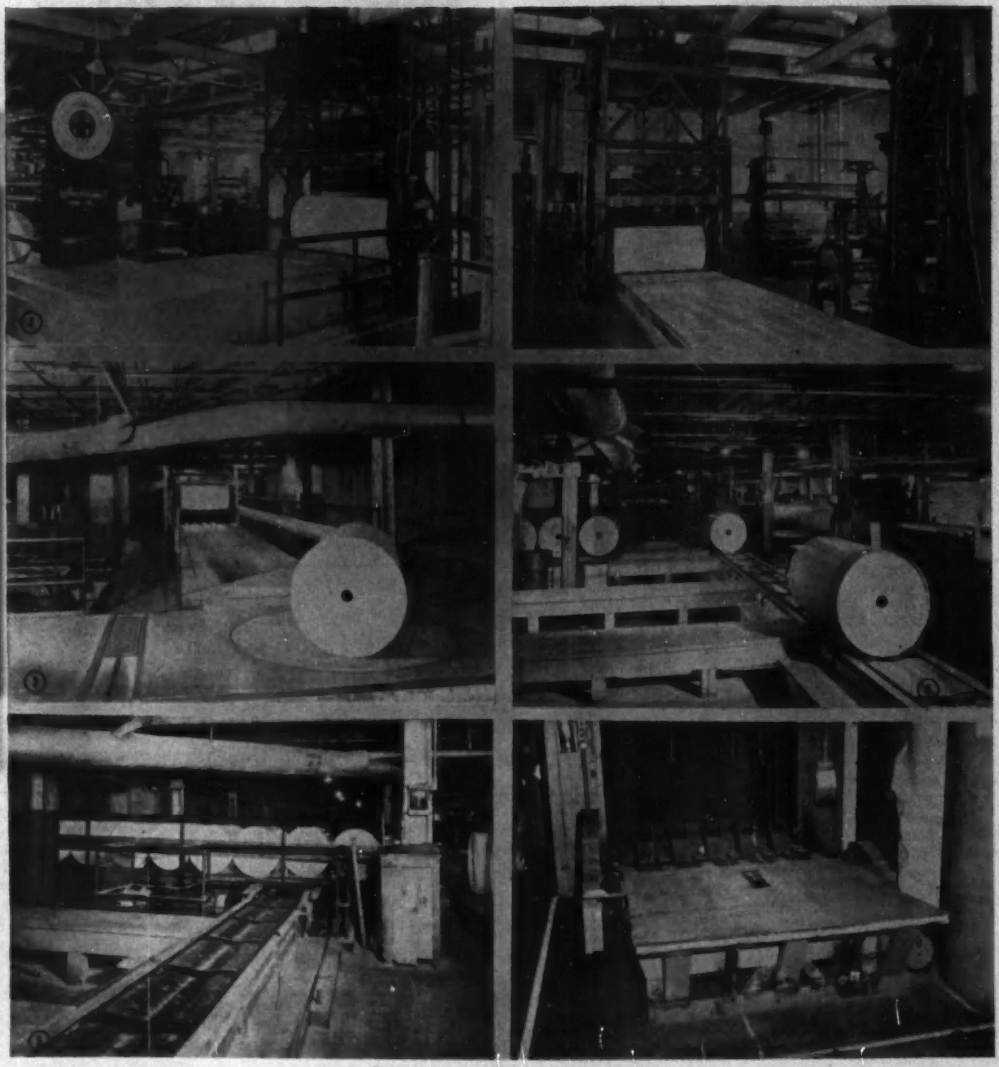
Note also on the left the drive end of a storage conveyor which will be shown on the next slide.

After the roll of paper is wrapped, in the area shown on the right background of *Figure 4*, the rolls are again weighed and then delivered to this storage conveyor. From here they are rolled to the storage tables shown on the left, and removed from the opposite end for shipment, either by truck or rail.

This storage conveyor is about 130 ft. long, and is made up of a series of V-type cars, connected and propelled by a single chain. It is reversible and can operate at any desired speed. This particular one operates at 60 ft. per minute. For better and safer control, push button stations are located at various points along its line.

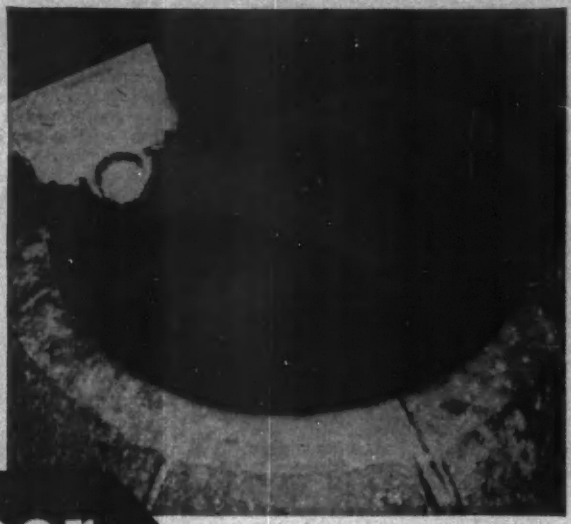
Figure 5 is a view of the drive end of the storage conveyor, equipped with a safety switch to prevent over travel of the paper rolls. In the center background can be seen an accumulation of rolls on the unloading runway from the roll lowerer. At the extreme right are rolls on the wrapping table.

This whole system for handling paper rolls is simple, yet safe and reliable. It is a good sound method of handling, wrapping, heading, weighing and storing rolls of paper within a minimum of plant floor space and at a minimum cost of operation.

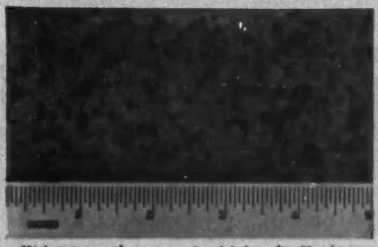


Figures 1, 2, 3, 4, 5 and 7

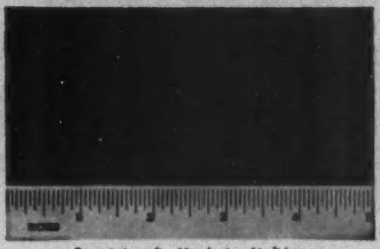
Less Horsepower per ton of pulp production



the Downingtown Fibrepulper utilizes power more efficiently . . . !



High wet strength government map paper after 30 minutes pulping in water 200°F. in Downingtown Fibrepulper.



Same paper after 90 minutes of pulping.

Because of its shape and design, the Downingtown Fibrepulper increases the number of times the pulp is passed through the defibring area within a given interval of time. This results in a more thoroughly refined pulp and a consequent appreciable decrease in kilowatt hours required per ton of output. With the high pulping rate the size of the unit is smaller for a given tonnage output. This reduction in size results in space saving and installation cost.

Installations of the Downingtown Fibrepulper are helping mills conserve power, increase production and reduce costs. Our technical men are available to discuss pulping problems with you by appointment.

DOWNINGTOWN MANUFACTURING CO., DOWNINGTOWN, PA.
Pacific Coast Representative: John V. Rusland, Pacific Bldg., Portland 4, Oregon
IN CANADA: *WATEROUS, Limited, Brantford, Ontario*

DOWNINGTOWN

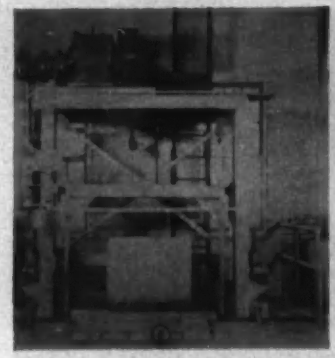


Figure 6

Figure 6 is a skip type unit as previously shown, and it is in another paper mill. The main difference is that this unit can raise as well as lower the rolls between floors.

Figure 7 is a view in still another plant, showing a roll elevator consisting of a single tray suspended on two chains. It operates in guides, which are arranged to tilt the tray, allowing it to discharge rolls automatically on the floor above.

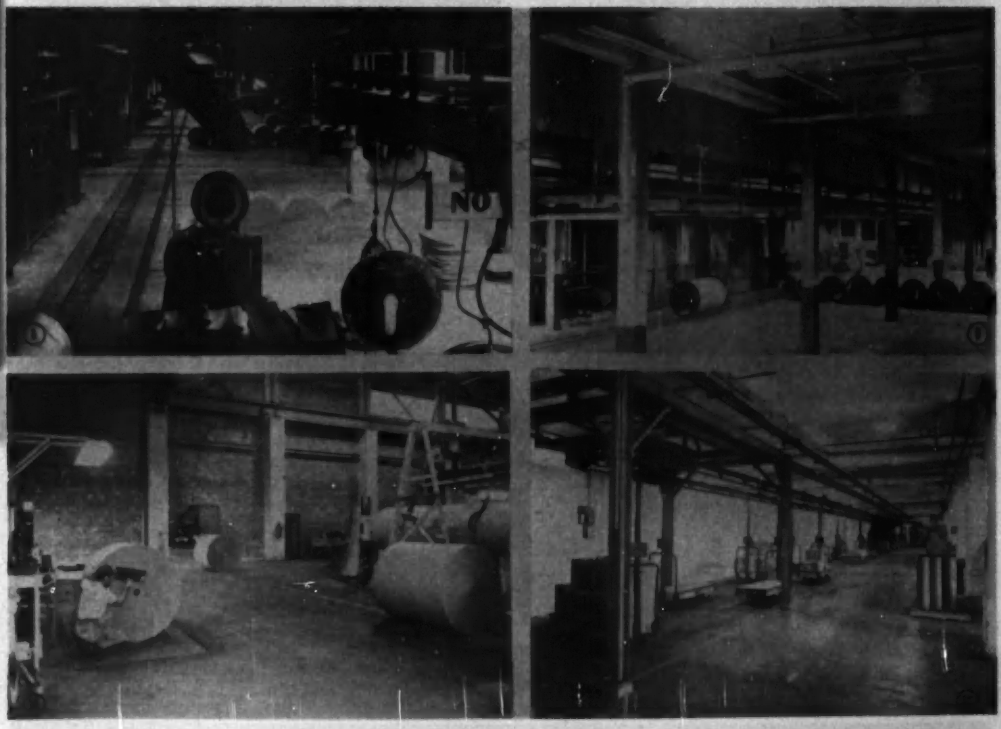
The loading station shown in this view is equipped with a motor driven, tilting cradle type loader. It is interlocked electrically with the elevator, and as shown here, the roller equipped cradle arms are inclined to retard the roll until the hoisting tray is in place. This loader automatically loads the elevator and at the same time retards following rolls. Doors at loading and discharge stations open and close automatically.

This elevator is quite simple, requires very little power, and gently handles rolls up to 5,000 lbs. in weight at a hoisting speed of about 75 ft. per minute.

Similar installations have been in use for a number of years in large newspaper plants. One in particular utilizes gravity and dollies to transport the paper rolls under city streets from a storage warehouse to the elevator in which they are elevated 44 ft. to the press room floor. This particular elevator consists of a series of trays suspended from two strands of chain, and is designed to handle 36" diameter, 2000-lb. rolls at the rate of two per minute. The scope of usefulness of elevators of this kind is very broad. They can handle rolls of newsprint, kraft, or highly finished paper very gently and just about as automatically as conditions warrant. There is virtually no limit to their height. As to their potential refinements, they can be and have been arranged to receive or to discharge selectively at several floors, with capacities to suit the individual requirements. They certainly provide maximum safety for personnel and reduce manual handling to a minimum.

The first series of illustrations showed a pallet conveyor serving the wrapping and heading department of a large paper mill.

Figure 8 gives a good view of another somewhat similar conveyor which serves as the means of transporting rolls along one side of the shipping room and warehouse to a loading dock. This is in another large paper mill. This particular conveyor is 12" wide and about 150' long, handling rolls of up to 42" in diameter by 80" long, weighing as much as 4000-lbs. each. The railroad siding extends along the far side of the room, thus permitting rolling transfers directly from the warehouse floor to the box cars. A similar heavy-duty pallet con-



Figures 8, 9, 10 and 13

Strathmore Quality Control *starts with* Taylor Control!

UNIFORMLY high quality paper begins in the beater. The well known uniformity of famous Strathmore bond is protected by Taylor Control of the pressure on every Strathmore beater roll at both their Woronoco (*below*) and West Springfield Mills.

The Taylor Beater Roll Pressure Control System is helping Strathmore:

1. **Accurately duplicate previous results, time after time.**
2. **Increase production, by reducing beating time.**
3. **Save power, by eliminating excessive roll pressure.**

The operator presses a button . . . the Taylor system automatically lowers the beater roll, controls the time and beater roll pressure according to a predetermined schedule, and raises the beater roll at the end of schedule.

The Taylor Beater Roll Pressure Control is just one of many ways that Taylor is helping the paper industry guard product quality and cut operating costs. Ask your Taylor Field Engineer, or write: Taylor Instrument Companies, Rochester, New York, or Toronto, Canada.

Instruments for indicating, recording and controlling temperature, pressure, flow, liquid level, speed, density, load and humidity.

Taylor Instruments
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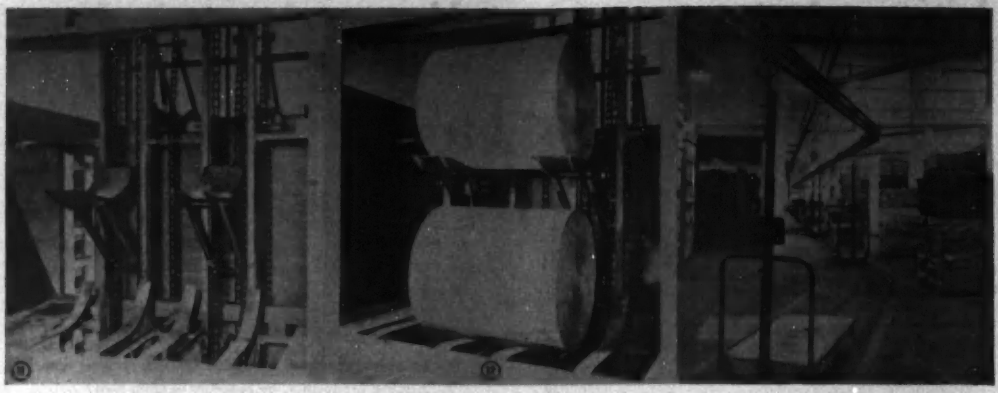
IN HOME AND INDUSTRY



Figures 11, 12 and 14

veyor, also mounted flush with the floor, serves the calendering room on the floor above.

Figure 9 is another view of the same conveyor, showing quite clearly how rolls of paper can be loaded or unloaded at any point in the path of the conveyor. The conveyor system can also be used for "live storage" and, since it is flush with the floor, the usual structural members of a conveyor are not present, thus we have a neater appearance and better housekeeping, with lower maintenance costs.

The conveyor in floor, shown in *Figure 10* conveys rolls of paper from rewinder and slitter into the storage room or to a lowerer for transfer downstairs. It is 140′ long and has oak pallets mounted on a single strand of chain. This conveyor operates intermittently.

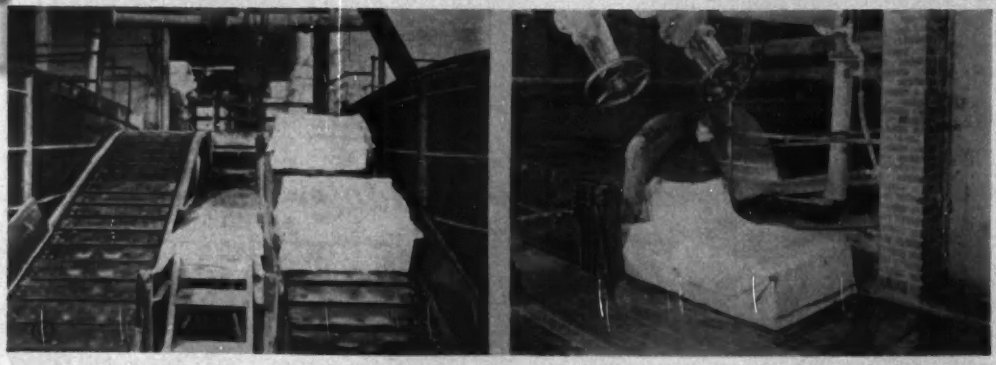
In showing these three pallet conveyors, an effort has been made to illustrate good materials handling equipment, suited to meet specific conditions. The first was in an already existing plant. Therefore, the conveyor was elevated above the floor. Of the latter two mills, one was new and the other was erecting a new building. Thus, provisions were made for installing the conveyors in the floor. This, of course, refers back to an earlier statement—"Suit your conveyors to meet your particular mill conditions."

The tray elevator, shown in *Figure 11*, is in a kraft multiwall bag manufacturing plant. It handles rolls of paper 3′ diam. by 6′ long, weighing 1600 lbs., from basement to bag manufacturing floor—a lift of 19′. There are three sets of roll cariers. Each has guide rollers that ride in vertical tracks in the ascending run and thus keep tray from swinging. Note the four-arm spring steel loading skids.

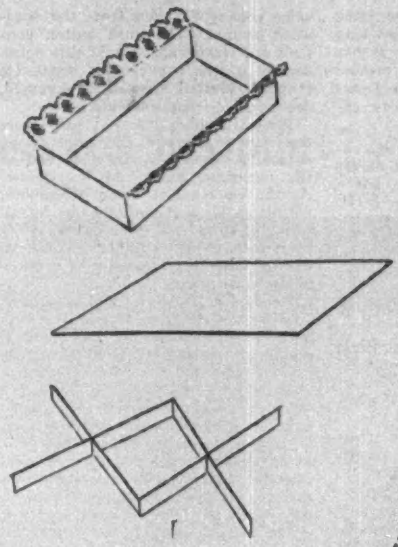
Figure 12 shows another view at the basement floor level. One roll is ascending. Another is on the loading fingers, ready to be picked up automatically by the next carrier. Rolls are automatically discharged on the "up" side to an unloading ramp on manufacturing floor, by a simple mechanism which tips the curved trays forward. Tension springs retprn the carrier to normal position.

Figures 13 & 14 are used to illustrate another practical method of handling finished stocks of paper in the warehouse.

This particular warehouse contains about 160,000 square feet of warehouse space and has 30,000 sq. ft. of dock space. It services customers on orders ranging from a ream of paper to a carload. The method of dispatching orders and servicing them is as follows: the order is dispatched by a pneumatic system from the office in the shipping room to the area from which the items are to be obtained. Overhead is a continuous 1200′ long trolley conveyor which is used to tow trucks, weighing 300 lbs. empty and 2300 lbs. loaded, throughout the warehouse and shipping dock area. To fill the order, the warehouse man simply detaches a truck from the conveyor, using the telescopic mast; loads the required items; marks destination of the truck on the small blackboard mounted on the mast; and attaches the truck to the conveyor. This system is simple and economical and yet provides a very flexible method of assembling and dispatching a variety of orders quickly and in an orderly manner.



Figures 15 and 16



avoid the smell... increase the sell

Manufacturers of packages for candies, foods and confectionery products are offering their customers distinct sales advantages by supplying paper and cardboard boxes that don't smell like paper. They are adding Monsanto flavor and aroma chemicals to their stock to mask undesirable pulp and paper odors and tastes that can be transmitted to the package contents.

The application of these flavor and aroma chemicals is very simple. Since only small quantities are needed, the added cost is trifling by comparison with the added sales advantages that result.

Investigate these increased sales and profit possibilities. For information, contact the nearest Monsanto Sales Office or MONSANTO CHEMICAL COMPANY, Organic Chemicals Division, 1700 So. Second St., St. Louis 4, Mo.

DISTRICT SALES OFFICES: Birmingham, Boston, Charlotte, Chicago, Cincinnati, Cleveland, Detroit, Houston, Los Angeles, New York, Philadelphia, Portland, Ore., San Francisco, Seattle. In Canada, Monsanto (Canada) Ltd., Montreal.

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ETHAVAN, Monsanto's ethyl vanillin
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METHYL SALICYLATE, U.S.P., synthetic oil of wintergreen
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SERVING INDUSTRY... WHICH SERVES MANKIND

Figure 14 is a view of the same conveyor, showing one of the two long parallel runs of the conveyor. It has long horizontal runs, winding around a number of roller turns, and it passes through a number of fire doors en-route.

Of interest at this point, let us consider the drive. This conveyor moves at a speed of 100′ per minute, has a booster drive equipped with a 5-HP Electrofluid Drive, which assures smooth starting under all conditions as well as minimum power consumption. Furthermore, the drive will cut itself out altomatically in case of a fire, resulting in the fire doors closing down on the conveyor.

Once again, this overhead system was selected to fit an existing building. If a new building is being erected or if a new floor is being laid, it might be advisable to place the conveyor in the floor. Again pointing out that materials handling equipment can be designed to suit existing conditions.

Since so many mills must supplement their own production with purchased pulp, *Figures 15 & 16* have been included to show methods of handling bales. Here is shown the inclined portion of two 36″ wide reversing steel apron conveyors which handle 400-lb. bales of sheet pulp from box cars at the unloading dock direct to the beaters or to storage at the far end of the conveyors, later to be returned to the beaters as needed.

Figure 16 is another view of the same conveyor, taken from the operation station. The push button controls are clearly shown. At this point, control of the conveyor is regulated. It can be started, stopped, or reversed, depending on requirements.

When handling bales of pulp from box cars to storage, the bales travel to a stop, located at the head end of the conveyor, inside the warehouse. As the conveyor is made of smooth, flat plates, it easily continues its travel, bringing up several more bales. These bales pack closely together and can be removed together en masse by a crane to the warehouse.

Maximum speed of this particular conveyor is 60′ per minute. It has been in operation for 15 years with a minimum of maintenance. Another development the conveyor industry is now working on is for the semi-automatic removal of wires from baled pulp by storage of this pulp in such a manner that the large batch type beater can be charged quickly and efficiently. I am pleased to report that this project has gone beyond the talking stage and is now a reality.

The illustrations and descriptions included herein, are but a few of the many applications of properly designed and engineered materials handling equipment. Each installation was developed to solve a specific problem, having as the final objective, in each case the reduction of handling costs. The equipment was designed in each case for maximum dependability, since few industries are penalized so heavily by delays and down-time as in the paper industry.

The search for better materials handling methods need not be confined to large and more important processes and operations. Many timse simple improvements result in substantial savings in production costs. Too often, the possibilities for cost reduction by the use of materials handling equipment are obscured by familarity with, and the unchallenged acceptance of, customary methods and operations. For this reason, most mills can profit from a thorough study of their processes and intra-plant transportation of materials in order to determine where potential savings are possible.

This search for better materials handling methods should not be confined to one man or even to one group of men. One group may have the responsibility for analyzing, screening and activating projects, but all personnel should be encouraged to be on the alert for possible improvements. Do not overlook the ideas of the men in the mill. Much of the progress already made in methods and devices stems from the "gripes" and observations of front line operating personnel.

Maximum success in the development of new methods, designs and devices require close cooperation and mutual confidence between plant engineering groups, management, and the equipment manufacturers. We in the conveyor industry are at your service.

New Equipment

Fork Truck Universal Clamp

The Master Universal Clamp, an attachment of many uses, is designed to lift, transport, stack, and unpile a great variety of materials. Used on a "Spacemaster" Fork Truck, it can handle boxes, cases, or unit loads up to 1700 pounds, 48″ long on pallets, bins or skid platforms when lifting arms are used as conventional forks. When the Hydraulic Side Clamping feature is used, the Clamp's value is realized in the easy handling of rolls, or bales of various materials — singly or more at a time—compressed or flat —in any position, up to 1400 pounds.

With this attachment, truck is ready at all times to handle such diverse types of materials as unit loads on pallets or platforms, materials in bins, bales of cotton, paper or waste in all bale types or other loads which can be held firmly by hydraulic pressure between the lifting arms, without damage to the materials.

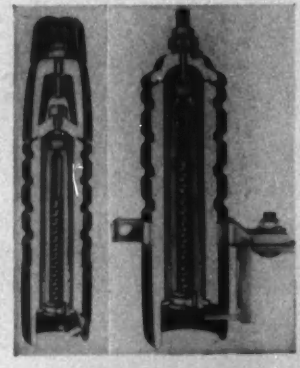
Of arc-welded steel construction, the clamp is built for continuous and heavy-duty service. Lifting arms, operated by two hydraulic rams fed by the main hydraulic system of the truck, are readily adjustable within the range spreads 18″ to 46″ and 23″ to 60″, depending on nature of materials to be handled. Since the Hydraulic Side Clamping feature is operated by "deadman" type control, side clamping of lifting arms can be held in any position of closure.

Made by Lewis-Shepard Products, Inc., 192 Walnut Street, Watertown, Mass.

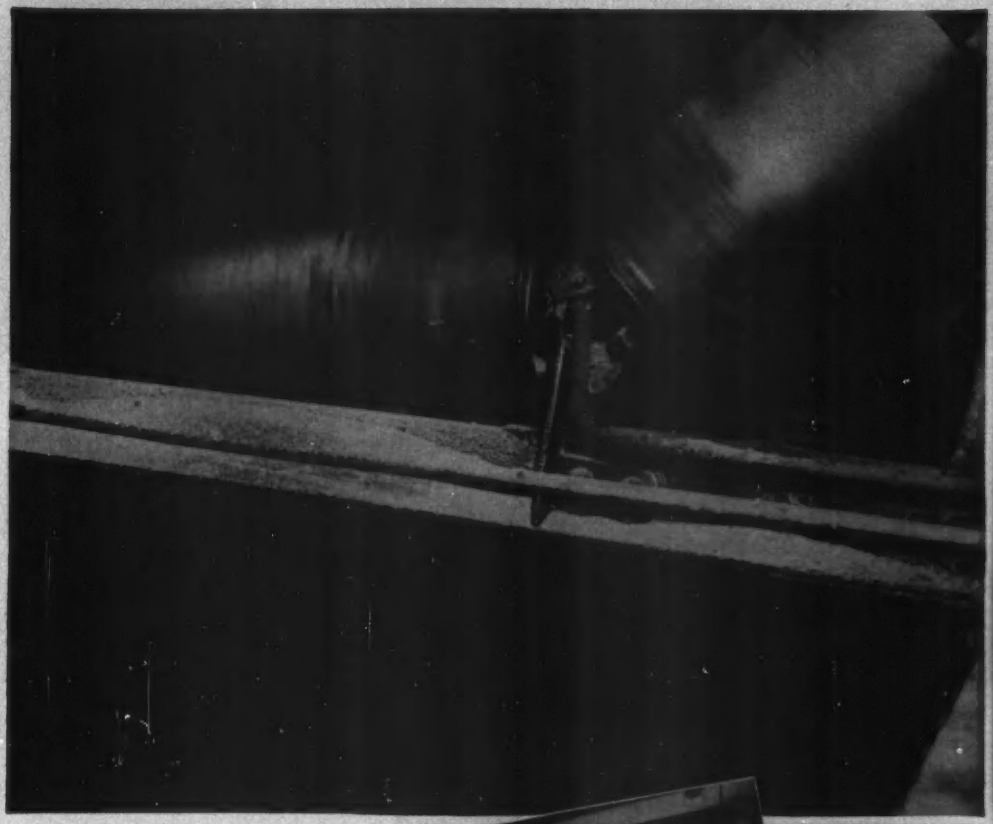
High Capacity Expulsion Arrester

A new De-ion expulsion-type lightning arrester for protecting distribution apparatus known as type LX, is announced. The unit utilizes a new method of limiting power follow current on systems having fault currents as high as 20,000 amperes.

A spiral fiber filler, heart of the arrester, is designed to provide longer arrester life and positive protection by lengthening the power arc path to four times the original spark path. As a result, the power follow current is limited to a fraction of the available fault current. Although the arc



What's U. S. Rubber done to increase belt flexibility?



In a western paper mill, this conveyor belt operates over carrying idlers having a 45 degree angle between the horizontal and inclined rolls. To take this unusual angle, the belt (U. S. Rubber's patented Style XN) has nylon in the filler strands of the carcass fabric, providing unusual flexibility and inherent resistance to bending fatigue. The use of 45 degree angle carrying idlers increases belt capacity and reduces spillage.

This is another example of how U. S. Rubber belting engineers contribute to the advancements in belt conveyor haulage.

PATENTED NYLON CONSTRUCTION
Style XN conveyor belt carrying wood chips on 45 degree idlers up incline. Crosswise flexibility of its construction assures proper training.

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UNITED STATES RUBBER COMPANY

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OLIVER

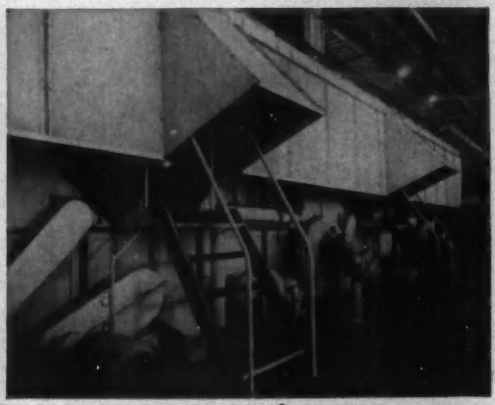
"Ringvalves"

...that led to a record-breaking order

A year or so ago we announced an order for 16 Oliver Ringvalve Filters from a paper company operating in the South. This was the largest single order for "Ringvalves" ever placed and, certainly, one of the largest single orders for *any* type of pulp and paper mill filters ever placed anywhere. In every respect, it was a record order.

Now, along comes a bigger order from the same company for 17 Oliver Ringvalve Filters, consisting of Brown Stock Washers, Bleach Washers and Deckers.

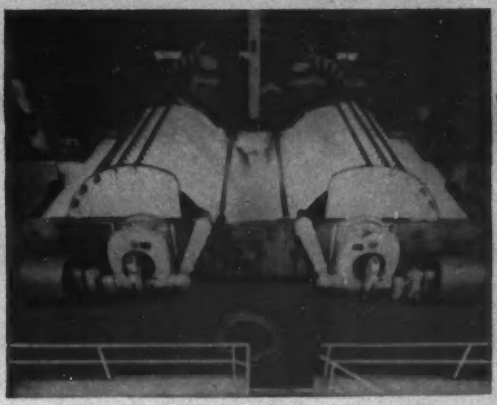
The most important feature is not the size of the order — interesting as that may be — but what brought it about. Those placing this order had been operating "Ringvalves" for several years and endorsed them. They liked particularly the inherent *plus* capacity in Ringvalves always available when the production pressure is on. They liked its satisfactory washing, regardless of tonnage handled. So, when plans for a new mill were being drawn up, the choice was the Oliver Ringvalve Filter for all operations where is would properly fit.



Three Brownstock Washers — Drive Side.

Three Ringvalve Brownstock Washers — Feed End.

Could you ask for any stronger testimonial? When a company lives for some time with a piece of equipment doing vitally important work and then can say "This is what we want for our new mill" . . . that equipment must be right! Certainly, it must be satisfactory! Being satisfactory and being right is the main reason why the Oliver Ringvalve filter — 17 units in all — is going into the company's new mill and why it has gone into so many other mills. Including this record-breaking order, the total Ringvalves now in service or under construction runs well over one-hundred-and-fifty.



Bleached Pulp Ringvalve Dockers in foreground (rubber covered, stainless fittings); Unbleached Pulp Dockers in rear (steel with stainless steel fittings).

The Oliver Ringvalve Filter, unique in design among all [illegible] mill filters, offers the following advantages:

1. . . Each unit can do either acid or neutral-type washing.
2. . . Multi-stage washing plus re-washing can be done on [illegible] units.
3. . . Because of their combined operations, pulp is handled less frequently, less operating and maintenance equipment are required.
4. . . Permits operation with more dilute feed to vat thus promoting more uniform and better sheet formation, [illegible], better washing.
5. . . Central drainage quickly loses surface of liquid that belongs to form uniform sheet.
6. . . Closed bottom of the valve, directly under the sections, provides minimum dead leg weighting in better operation of wash liquor.
7. . . Permanent leg operation.

In addition to the 17 Oliver Ringvalve Filters ordered for the new mill, the company is buying a standard 8 x 12 pipe type Oliver Savveall with tile vat, similar to the unit illustrated above. This unit is rubber covered with stainless steel fittings.

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Johannesburg, Transvaal

Puseyjones Again!

Above: Aerial view of Union Bag & Paper Corp., Savannah, Ga. Recently new buildings have been constructed in the area at rear center.

Left: No. 1 Puseyjones Machine installed at Union Bag in 1936, and No. 3 Puseyjones Machine which went into operation in 1937.

Right: No. 4 Puseyjones Machine installed at Union Bag in 1942 is making liner board for corrugated shipping containers. Just visible at left is the No. 3 Puseyjones Machine which went into operation in 1937.

No. 6 Machine for Union Bag

The production of the world's largest kraft paper mill is made on Puseyjones machines.

Five of these great Fourdriniers – each of 236" wire width – built over a 10-year period, 1936-46 – give Union Bag & Paper Corp., Savannah, Ga., a production of 1,400 tons of kraft paper and paperboard daily.

And now – Puseyjones is building a No. 6 Machine for Union Bag . . . another 236" giant, designed for a maximum operating speed of 2000 feet per minute which will increase production 300 tons a day.

Puseyjones is proud of its long record of service to this great plant. This service is freely offered to other manufacturers who want to increase production and improve quality with Fourdrinier Machines, Cylinder Machines, Yankee Machines, or a combination of any of these types. Write or call for a Puseyjones technical engineer today.

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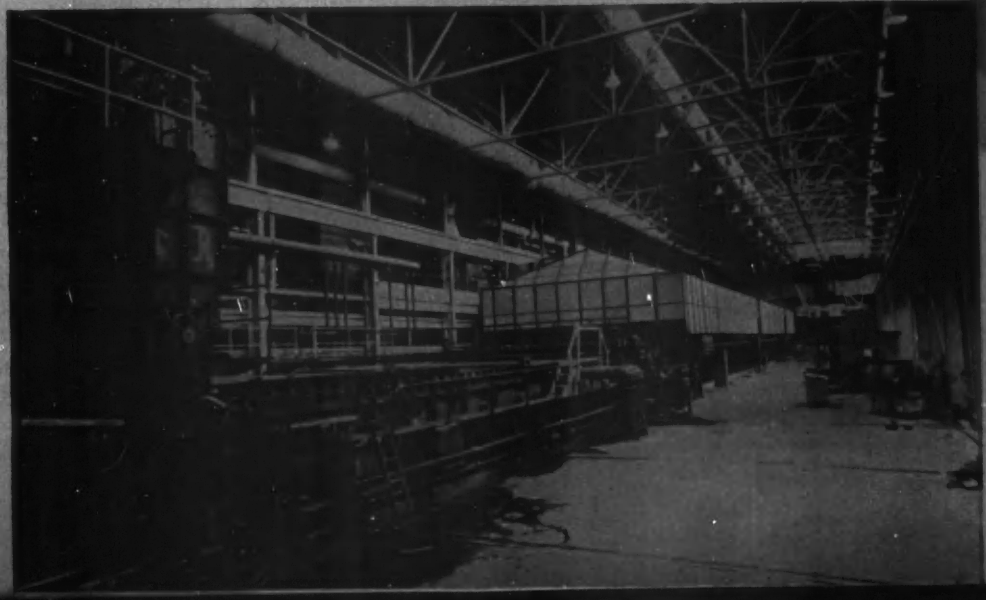
THE PUSEY AND JONES CORPORATION
Est. 1848. Builders of Paper-Making Machinery
Fabricators and Welders of all Classes of Steel and Alloy Products
Wilmington 99, Delaware, U.S.A.

No. 5 Puseyjones Machine installed at Union Bag in 1946.



path is lengthened considerably, spark-over values are kept low by high field stresses between the upper electrode and the metal shield surrounding the fiber arc chamber. A steel reinforced arc chamber and the spiral groove in the fiber filler, which store gases generated during surge discharge, make the arrester capable of withstanding surge currents in excess of 65,000 amperes, it is stated.

Built to AIEE and NEMA standards, the type LX arrester is available in ratings of 3, 6, and 9 kv—and will later be available in ratings of 12, 15, and 18 kv.

The top gap arrester, pictured at left, is designed for standard crossarm application. Although protected by a porcelain housing for both reliability and safety, the series gap is open for inspection at all times. The mounting bracket is ungrounded. The bottom gap arrester, at right, is designed for crossarm mounting and can be adapted for transformer mounting. The ground terminal is a part of the mounting bracket.

For further information, write the Westinghouse Electric Corp., Box 2099, Pittsburgh 30, Pa.

Cupcase Thermometer

A new Cupcase Thermometer, narrow enough to fit into two-inch gauge pipes, is announced. Conforming to all A.S.T.M. requirements, the new instrument is designed for use in obtaining accurate temperature readings of oil in storage tanks. Narrow enough to fit two-inch gauge pipes, it can also be used wherever a cupcase thermometer can be applied, since it conforms to all A.S.T.M. requirements. It is available in two scale ranges: one from 0 to 180°F., (A.S.T.M. No. 59F-48T) and the other from —30 to 120° F. (A.S.T.M. No. 58F-48T) Both scales have 1 degree graduations. Made of non-sparking metal, the cup measures 1¾" in diameter. Overall length of the instrument is 16 inches. Cut capacity of 100 milliliters compares with smaller types of from 20 to 60 milliliters capacity.

For easy reading, the thermometer has a red mercury column with lens front tubing. Precise temperature readings are thus facilitated even under extremely adverse conditions. Two TAG Spring Tube Fasteners permit ready replacement of tubes in the wood backing and prevent breakage under normal conditions.

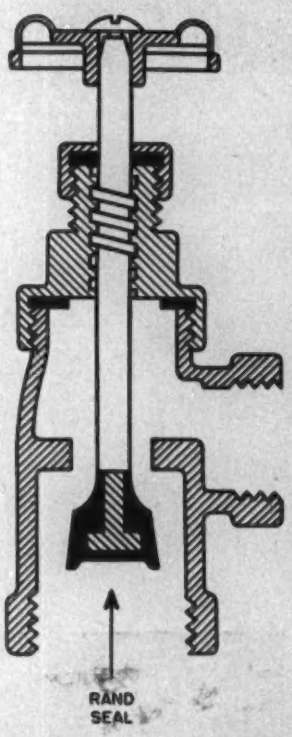
Write TAGliabue Instruments Div., Weston Electrical Instrument Corp., 614 Frelinghuysen Ave., Newark 5. N. J.

Rand Valve Seal

Operating on a revolutionary new principle, the Rand Seal makes possible a valve that is described as leak-proof, long wearing, easier operating and comparatively inexpensive to manufacture.

Essential operation of the new seal is based on working with, rather than against, the fluid flow. The cone-shaped seal is closed in the same direction as the movement of the liquid, allowing high or low pressures to seal the valve. The cup-shaped conical washer incorporates an imbedded metal plug designed to eliminate bending and warping and make the seal leak-proof. If contaminants in the fluid, such as sand or grit, are not pushed ahead of one sealing line contact, the conical shape of the seal provides establishment of a new line contact without damage to the bore. The rubber member of the seal is specially compounded to withstand oil, grease, steam, water, and most industrial chemicals.

Adaptable to many present designs of valves and other devices for the control of fluid and gas flow, the Rand Seal usually reduces machining and material costs. Elimination of drips, leaks and other faults common to present day designs is added through the Rand Seal to greater control of flow and lower cost of upkeep.



Samples and further information are available from the Rodic Chemical and Rubber Corp., 1953 Allen Ave., New Brunswick, N. J.

Simplified Ventilator

Of the "straight-through" type, the powered roof ventilator features simplified design and low over-all height without sacrificing efficiency. The unit is "open" only when its propeller fan is operating, the air stream being

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PAPER

CORROSION CRIPPLES- MORE WAYS THAN ONE

Valuable products as well as vital equipment are threatened

Corrosion takes its toll in more ways than one—it eats away costly, hard-to-get equipment—wastes man-hours while plants are shut down for repairs—and causes loss of vitally-needed products through contamination.

Every industry suffers from corrosion in some form, yet much of this waste can be avoided by taking these steps:

1. Check manufacturing equipment, storage tanks, and other items exposed to corrosive fumes, acids, alkalies, or moisture.
2. Arrange to protect them with AMERCOAT—the corrosion resistant coatings, each built to conquer specific industrial corrosion problems.

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utilized to open and hold two semi-circular halves of the damper while forcing unwanted elements out of the building. A streamlined fan ring directly above the square-tipped blade propeller guides the airstream smoothly without back-flow, it is said. Given the trade name "Whirlout," the new unit is supplied in a wide range of sizes and capacities. It is completely weathertight at all times. Whirlout ventilators are described in Bulletin 346, available from the Swartwout Co., 18511 Euclid Ave., Cleveland 12, Ohio.

NEW CABLE SPLICING METHOD

A new method of splicing steel cable conveyor belting, developed and patented by The B. F. Goodrich Co., Akron, Ohio, places all cables under equal tension during vulcanization so that each cable carries its share of the load in the finished splice.

The new method also permits the straightest possible splice, resulting in belts that track straight and true for economical, trouble-free operation. Laboratory stress-strain tests prove that the splice is as strong as anywhere else in the belt.

To make the splice, cable ends are cut in staggered pattern. Small tubular connectors are placed over the butted ends. Connectors are first given a light crimping. The partially made splice is then stressed to even the lengths of the cables, and connectors are given a final crimping to lock them to the cables. Rubber and fabric removed for the splice is then rebuilt around the cables. The splice is cured under tension with a conventional vulcanizer.

The tensioned splice can be made in the field as well as at the factory. Only special tools needed are a crimping device for squeezing the connectors to anchor the cable ends, and a special scraping tool to remove rubber from the cables.

SANDY HILL DEVELOPMENTS

Development of mill equipment at The Sandy Hill Iron and Brass Works during recent months has been directed toward solution of woodland problems, the pressing stream pollution abatement problem, advanced pulp bleaching research and development, and an improved type of foaming machine for hardboards. This has been in addition to development and modernization on such standard Sandy Hill items as the removable fourdriniers, special application of the Sandy Hill-Bertrams Flow Unit and other items in the Sandy Hill line.

THE PERRY MACHINE

A number of orders are now in process at Sandy Hill for a new type of paper making machine known as the Perry Machine. This is an entirely new type of vacuum forming machine. The production of this machine can be adapted to a number of applications. One of the first applications was for the production of "Peripac" and "Pillopac". Both are molded protective wrapping materials with unusual toughness and cushioning qualities. They are an unusually low-cost product made entirely from inexpensive waste materials by the patented Perry Continuous Molding Process.

In forming the sheet, web and pads are integral, with an arch molded under each pad. This unique construction creates a dual cushion, with a double shock-absorbing quality. Although tough, the sheets are light in weight and extremely flexible, making for easy wrapping of irregular shaped packages.

Later adaptations have proven the practical application of the Perry Machine for use in making certain hardboards, leather boards, trunk and luggage boards.

TEST SPENT LIQUOR BURNING

On September 25, experts in the newly developed art of burning spent sulphite liquor gathered at Appleton, Wis. for one of the most exhaustive tests of this industrial fuel ever to be made on the American continent. Up to the time of this test, no pulp mill in this area has ever known to burn conventional sulphite liquor for more than 20 hours.

Paper industry technical men and combustion engineers who specialize on the problems of reducing sulphite pollution focused their attention on a brand new furnace recently installed in the power plant at the Interlake Mill of Consolidated Water Power & Paper Co. Babcock & Wilcox Co., one of the world's largest technical organizations in the field of combustion, sent a crew of engineers and technicians to record and cross-check every significant factor in the test.

Engineers of General American Transportation Co. newly returned from a trip to Sweden, Norway, and Finland to check on evaporation and burning progress there, were also on hand. This concern fabricates the Swedish-designed evaporators required for concentrating the watery mill effluent so that it will burn.

Scientists and engineers of the Sulphite Pulp Manufacturers' Research League assisted in the tests by analyzing such results as the composition of flue gases.

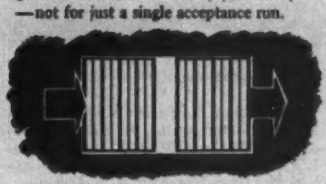
The center of attention was Interlake Mill's new furnace, which is a tunnel type in vertical position. It is so designed that the fuel, flame, and inrushing air circulate in cyclone fashion. Thus sufficient heat is applied to

These 10 BIG Features Make Western Precipitation COTTRELLS Outstanding in the Paper Industry

When considering COTTRELL Equipment for salt cake recovery, or any other application in the paper industry, remember this . . . *Western Precipitation Corporation not only pioneered the first commercial application of* COTTRELL *equipment made in any industry, but also pioneered the first application of* COTTRELL *equipment in the paper industry.*

Among the vitally important advantages found in Western Precipitation COTTRELLS, the following are particularly important in paper mill installations ...

1 Sustained Year-After-Year Efficiency: The recovery efficiency of Western Precipitation COTTRELLS does not fall off in service. All parts are of ample design to maintain guaranteed over-all efficiency year-after-year —not for just a single acceptance run.

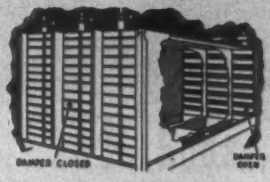


2 Higher Recovery: The horizontal flow design of Western Precipitation COTTRELLS eliminates collected material falling countercurrent to incoming gas stream. This assures higher recovery, minimum resuspension of recovered material in gas stream.

3 Maximum Performance: Horizontal flow of Western Precipitation COTTRELLS permits use of multiple electrical sections so that voltage in each section can be varied to dust loading for maximum recovery without arc-over or electrical breakdowns.

4 Lower Over-all Cost: When comparing COTTRELL costs, be sure to compare total *installed* cost, including duct work.

5 Simpler Maintenance: Because all interior parts and electrode systems are readily accessible, Western Precipitation COTTRELLS are far easier to maintain and service. Saves "down" time, saves repair costs.



6 Greater Adaptability: Horizontal flow design permits use of multi-vane dampers in multiple-unit installations. Thus, one unit can be shut off completely to permit maintenance operations without closing down entire Precipitator. Also, the dampers can be used in slightly-closed position to assure more uniform gas distribution.
On single-unit installations, chain curtains assure uniform distribution of gases. Curtains are easily kept clean by shaker mechanisms provided.

7 "V"-Shaped Hoppers: Horizontal design permits use of continuous "V"-shaped hoppers for collecting recovered material. Steeply-sloped walls in this type of hopper prevent build-up or bridging of recovered material.

8 Space-Saving Compactness: Not only do their horizontal design permit maximum compactness in Western Precipitation COTTRELLS, but various sections of a unit can be arranged for indoor installation in space above cascade evaporators, thus utilizing space otherwise wasted.

9 All-Weather Construction: Western Precipitation COTTRELLS are built for both indoor or outdoor installation, and this organization has had extensive experience with special construction to prevent excessive corrosion in rigorous northern climates.

10 More Extensive Experience: Since pioneering the commercial application of COTTRELL Precipitators over 42 years ago, Western Precipitation has consistently led in developing one unique advancement after another. Such features as 4-Point Electrode Suspension that eliminates misalignment of electrodes and reduction in recovery efficiencies . . . Unusually Rugged Rapper Design that assures proper cleaning of electrodes . . . Extensive Experience with all types of electrode designs . . and many other advantages assure you the ultimate in COTTRELL design and efficiency when you bring your recovery problems to Western Precipitation engineers.

Without obligation our nearest representative will gladly make Western Precipitation COTTRELL *experience available to you for solving your particular recovery problem. Why not contact him today?*

IMPORTANT! In addition to COTTRELL Electrical Recovery equipment, Western Precipitation Corporation also designs and installs the well-known MULTICLONE Mechanical Collectors for hogged-fuel fired boilers. These units are unusually compact, highly efficient and can be readily fitted into existing plants at minimum installation costs. *Write for details!*

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the incoming sulphite liquor to flash off its water content and leave the solids to burn almost in the consistency of gas.

To prepare for this full-scale dress rehearsal test, Interlake Mill has been operating the unit intermittently ever since it was installed a few weeks ago. Continuous operation has been impossible for lack of an adequate fuel supply. The mill-strength liquor must first be concentrated to contain more than 50% solids so that it will burn. This boiling-down process has been performed at the Appleton pilot plant of the League, the only plant in Wisconsin containing an evaporator capable of concentrating spent sulphite liquor. But the pilot plant cannot produce the concentrated fuel fast enough to keep pace with the new burning unit's rate of consumption, and in consequence there have been frequent furnace shutdowns for lack of fuel. To provide enough concentrated liquor as fuel for the three-day burning test requires a month's output of the pilot plant.

Latest developments in ways to burn sulphite liquor to keep it out of the streams were reviewed and experiences exchanged by the visiting technical men in between sessions of viewing the Interlake equipment at work. There is no other evaporator in this part of the world capable of handling spent sulphite liquor. At least four Wisconsin sulphite pulp mills have ordered large-scale stainless steel evaporators of similar type, and when these are delivered they will be able to convert ordinary mill-strength liquor into useful fuel. Delivery of all these units is being delayed by defense industries' requirements of stainless steel for uses directly concerned with the national defense.

FOREIGN NOTES

AUSTRALIA AND NEW ZEALAND

Imports of newsprint in rolls during the month of June totaled 12,216 tons, an increase of 1,706 tons on the May figure, but sheet imports were down to 410 tons, a matter of 112 tons less than May.

Imports of other printing papers were (figures being hundredweights of 112 lb.): Antique, 80 (Austria); imitation art, 3,324 (U.K. 1,666, Sweden 929, Finland 292, Japan 200, Italy 197, Austria 40); machine processed coated, 46,296 (U.K. 46,175, Sweden 57, Austria 64); other coated printings, 6,761 (U.K. 5,408, Sweden 967, Norway 213, Finland 153, Italy 20); offset embossed (except m.g. litho), 286 (Sweden 265, U.K. 21); offset (except embossed), 1,921 (Norway 1,163, Sweden 596, U.K. 162); lithographic machine glazed, 2,465 (Sweden 1,141, U.K. 727, Austria 597); machine glazed (except litho), 2,271 (Sweden 901, France 616, U.K. 284, Western Germany 234, Norway 177, Czechoslovakia 59); esparto, one side supercalendered, 38 (U.K.); one side supercalendered (except esparto), 4,227 (Finland 3,122, U.K. 391, Belgium 377, Western Germany 186, Netherlands 102, Sweden 49); two side supercalendered, containing 25 percent or less mechanical pulp, 1,425 (U.K. 847, Norway 296, Sweden 210, Austria 72); machine finished containing 25 percent or less mechanical pulp, 955 (Norway 842, U.K. 113); glazed imitation parchment, 940 (Norway 830, Sweden 110); other printings containing 25 percent or less mechanical pulp, 825 (Sweden 396, Netherlands 211, U.K. 80, Austria 80, France 58); and magazine and other printings containing more than 25 percent mechanical pulp, 55,632 (U.K. 34,640, Finland 10,750, Sweden 6,150, Norway 2,659, Western Germany 669, Austria 608, France 136, Netherlands 20).

* * *

The Premier of Tasmania, Mr. Cosgrove, denies statements that the State Hydro-Electric Commission has repudiated contracts by failing to supply electric power under terms of agreements. Referring to the position of the new newspaper plant at Boyer, which has been unable to operate because of the failure of the commission to provide power, Mr. Cosgrove said: "It is unfortunate that Australian Newsprint Mills did not have its new plant in operation earlier, as this naturally would have affected its power ration. The company has been unfortunate in having power restrictions at such a time, and I, personally, will be pleased if the rationing committee should decide that it should have a high priority and get more power."

* * *

Australian Paper Manufacturers Ltd. must make further share and debenture issues in the next year or two as the balance of funds is raised for the consummation of the company's expansion programme, Chairman Sir Norman Brookes told shareholders recently. "In the pulp and paper industry the time for bringing into operation major new producing units, which in pre-war years involved two or three years' work, has lengthened considerably. Commencing in about 12 months and continuing progressively over the ensuing 18 months or two years, the company's capacity will be rapidly increased from 150,000 tons a year of paper and board to between 225,000 and 250,000 tons. The capacity of the Maryvale pulp mills will be increased, in 12 months, from 43,000 tons to between 65,000 and 70,000 tons." It is also reported that new sites for future paper and board mills and for a pulp mill are being investigated.

* * *

Whakatane Board Mills Ltd., New Zealand, has arranged for the underwriting of 300,000 shares of the 379,499 ordinary and preference shares of a proposed new issue. This is being done to enable the company to confirm an order in the United States for new equipment needed for its expansion program.

* * *

Tasmanian Board Mills Ltd. reports a consolidated profit of £60,068 compared with the £50,051 of the previous 12 months. Ordinary dividend has been increased from 5 to 6 percent.

* * *

Directors of the Associated Pulp and Paper Mills, Ltd., Burnie, Tasmania, state that imported papers are being quoted for long delivery "at about double those produced at the Burnie mill." Consolidated profit for the year was £243,709 compared with the previous year's £243,685. But allowance for taxation was up from

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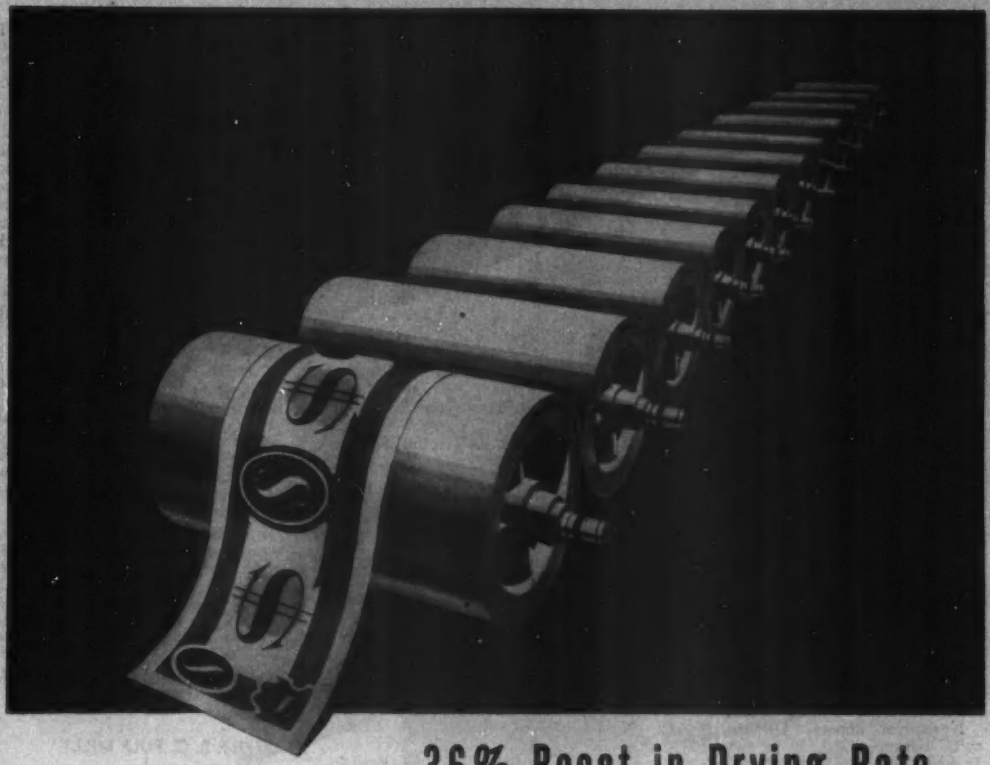

36% Boost in Drying Rate ...Pulls Plus Profits Out of a Paper Process

Perhaps, like many businesses, your own production is "pickled in a bottle"—holding its own, but breaking no records. If you're looking for a way to pry the lid off output, this drier roll story may give you an idea.

A leading producer of Kraft Board Stock wanted to gear up his drying process. Partial replacement (12 driers out of 72) of existing conventional drum-type drier rolls with Lukenweld Jacketed Steel Drier Rolls resulted in an overall tonnage production boost of 6% —directly attributed to the Lukenweld driers . . . *a 36% increase per drier.* In accomplishing this, operating pressure in the jacketed steel rolls was increased from 40 to 120 psi.

Such extra capacity can be yours, too, with Lukenweld Jacketed Steel Drier Rolls. For they can *safely* operate under pressures up to 350 psi and higher without adversely affecting product quality. Safety is assured through use of high-strength rolled steel plate (steel plate will not fail by shattering).

In addition to improved drying rates, Lukenweld Jacketed Steel Drier Rolls offer you the advantages of reduced installation and maintenance costs . . . more flexible operation.

For information on drying and other processing machinery for the pulp and paper industry, write: Lukenweld, Division of Lukens Steel Company, 403 Lukens Building, Coatesville, Pa.

Help promote steel production generally—speed sale of your scrap.

Improved machinery for improved processes through engineering

LUKENWELD

LUKENS

A DIVISION OF LUKENS STEEL COMPANY

£73,893 to £171,717, while depreciation allowance was £301,406 compared with £191,216. Ordinary dividend is steady at 6 percent. Output of the mills has increased by 10 percent, and the three machines ran almost without interruption on eucalyptus pulp. Stocks of paper awaiting shipment when the financial year closed were 2,000 tons higher than at the close of the previous years.

* * *

In New Zealand, prices for local brown kraft wrappings have advanced substantially, due to increased costs of raw materials. Rates to merchants are up £48 10s. 0. per ton, representing an increase of just under 50 percent. Shipping shortages have caused a drop in deliveries.

IRELAND'S INDUSTRY

In July, 1951, the Republic of Ireland imported paper and cardboard, etc., to a total value of £803,926 as against £440,265, in July, 1950. These imports brought the total value to £4,166,401, for the first seven months of 1951, as against £2,708,225, in the corresponding period of 1950.

Of the July, 1951, imports, paper-making materials amounted to 2,366 tons, valued at £263,793, against 2,062 tons, valued at £67,913, in July, 1950.

Coated printing paper, amounting to 2,774 cwt., and valued at £24,226, was imported in July, 1951, against 780 cwt., valued at £4,279, in July, 1950.

Newsprint imports fell to 25,993 cwt., valued at £68,550 in July, 1951, from 66,680 cwt., valued at £140,207, in July, 1950.

Other uncoated printing paper imported in July, 1951, amounted to 1,919 cwt., valued at £17,518, compared with 3,791 cwt., valued at £15,539, in July, 1950.

Other import values, included in the *Trade Statistics* issued by the Central Statistics Office in Dublin, are:

Article	*July, 1951*	*July, 1950*
Writing paper in large sheets	£12,838	£3,841
Packing and wrapping paper	£12,473	£1,242
Tissue paper	£6,825	£3,879
Oiled, waxed and other waterproof paper	£25,018	£14,617
Cigarette paper	£5,096	£3,632
Greaseproof paper	£10,416	£4,345
Imitation parchment	£29,195	£6,688
Gummed paper	£5,622	£4,190
Printed wall and ceiling paper	£1,869	£4,375
Transparent cellulose, etc., wrapping paper, (in sheets and rolls)	£21,767	£13,573
Other paper	£21,553	£7,913
Empty cardboard containers and parts	£47,931	£17,940
Fillers and flats for egg boxes	£243	£986
Strawboard, not worked or corrugated	£25,087	£11,689

Exports of paper and cardboard (including paper making materials) in July, 1951, were valued at £141,728, as against £33,754, in July, 1950. Total exports for the first seven months of 1951 were valued at £659,972 as against £160,312, in the like period of 1950.

Re-exports of paper and cardboard, etc., rose to £2,228 in July, 1951, from £470 in July, 1950, making the totals of such re-exports for the first seven months of 1951 £13,785 against £3,955 in the corresponding period in 1949.

FIGHTING PAPER WANTED

Invitation to bid has been issued by the New York Quartermaster Procurement Agency, 111 East 16th street, New York 3, N. Y., on QM-30-280-52-364, covering Paper, duplicating, liquid process, copy paper, sub. 20 (various colors and sizes), 73,484 reams. Bids will be opened October 30, 1951, at 10:30 a.m. (EST) at the New York office. This procurement is for the U. S. Navy and U. S. Marine Corps.

QM-30-280-52-366, covering Paper, typewriter, bond, sulphite (various colors, sizes and subs.), 188,440 reams; Paper, ledger, chemical wood, hard size finish (various colors, sizes and subs.), 4,870 reams; and, Paper, writing, chemical wood, sub. 20, white, size 8 x 10½, 47,000 reams. Bids will be opened November 1, 1951, at 11:00 a.m. (EST) at the New York office. This procurement is for the U. S. Navy and U. S. Marine Corps.

QM-30-280-52-361, covering Paper, book, chemical wood (various), 8,000 reams. Bids will be opened October 29, 1951, at 2:00 p.m. (EST) at the New York office. This procurement is for the U. S. Navy.

QM-30-280-52-405, covering Plates, duplicating, paper offset master, plastic coated, sulfite paper, type ends, pin bar punched and straight edged (various sizes and grades), 3,303,000 each. This procurement is for the U.S. Navy and U.S. Marine Corps.

QM-30-280-52-430, covering Bag 1 and 2 lb., paper, kraft, coffee, 5 million each; and Bag, paper, kraft, heavy, ¼, type 3, 5 million each; and Bag, paper, kraft, popular weight, type I, various sizes, 29,500,000 each. Bids will be opened October 30, 1951, at 1:00 p.m. (EST) at the New York office. This procurement is for the U. S. Air Force.

QM-30-280-52-421, covering Paper, wrapping, kraft, non-waterproofed, non-parafined, rosin sized, 24" and 48" width, 34 pound and 68 pound per roll, 8,775 rolls; and Paper, corrugated, flexible, single faced, 36" wide, 250 ft. per roll, 450 rolls; and Bag, grocer, paper, kraft, unbleached, 50 pound and 60 pound basis weight, 200,000 each. Bids will be opened November 16, 1951, at 2:00 p.m. (EST) at the New York office. This procurement is for the U. S. Navy.

QM-30-280-52-427, covering Paper, corrugated, single faced, various types, weights and sizes, 2,765 rolls; and Paper, wrapping kraft grade B, No. 2, 40 lb., 36" x 432 yds., 115 rolls; and Tube, paper, corrugated, flexible, various sizes, 1,295 rolls. Bids will be opened November 19, 1951, at 3:00 p.m. (EST) at the New York office. This procurement is for the U. S. Army.

ANOTHER B. C. PULP MILL?

Gibson Brothers Logging Co., one of the contenders in the recent Sorg mill purchase which finally went to Canadian Forest Products giving them the old kraft mill at Port Mellon, B.C., has recently been rumored active in pulp circles. Gibson Brothers and Tahsis Logging Co. are subsidiaries of the East Asiatic Co., headed by Prince Axel of Denmark, whose head offices are in Copenhagen.

The rumor began when the company applied for a forest management license to include some of its present holdings plus an additional block of timber on the west coast of Vancouver Island. It appears that the company plans to establish a sawmill and ply-

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VALUE in a fine product reflects the experience and skills of its makers.

VALUE in Fourdrinier wires is a matter of record... paper quality and production records in mills throughout America reflect the fact that *Appleton Wires are Good Wires!*

APPLETON WIRE WORKS, INC.
APPLETON • WISCONSIN

RESTIGOUCHE
BLEACHED SULPHITE
PULP

•

for the manufacture of Cellophane, Rayon and Products of Paper

Restigouche
BLEACHED SULPHITE PULP

RESTIGOUCHE COMPANY, LTD.
Campbellton, N. B., Canada

wood plant on Muchalat Arm, using tracts of timber adjacent to the Gold River area. The license would cover 132,000 acres, 35,000 of which would be new timber to the company's holdings. It is possible that the company has the step into pulp production in mind with this move.

The application for timber immediately came under fire from Bloedel, Stewart and Welch, Ltd., and Canadian Forest Products who had both been eyeing this stand. These and other interests state that the timber should be used to support existing communities near the area rather than in starting a new settlement at this time. Deputy Minister of Lands, C. D. Orchard, feels that the matter can be settled without a public hearing.

PEOPLE

ARTHUR J. GOETZ has been elected vice-president of River Raisin Paper Co., Monroe, Mich. Mr. Goetz has been vice-president in charge of purchases since 1947. He has been with the company since 1922. J. W. WALTER, secretary-treasurer, will continue in that post and have the added title of vice-president-finance. H. R. M. GOVERN, general superintendent of the firm's container plants for many years, has moved up to vice-president-manufacturing and as such will head all manufacturing.

R. CARL CHANDLER, former Trenton district sales manager, has been appointed Eastern sales manager of the Corrugated Container Sales Div. of Union Bag & Paper Corp. MAYNE MADSON, JR., former Chicago district sales manager, has been appointed Western sales manager. JOHN BUTLER, former Atlanta district sales manager, has been appointed Southern sales manager. F. W. PETTENGILL and J. A. BIGGINS will be assistant sales manager in the East and West respectively.

H. P. PETZOLD has been appointed mill manager of the Oxford Miami Paper Co.'s West Carrollton, Ohio, plant.

A graduate of McGill University, Mr. Petzold started in the paper business in 1927 with the International Paper Co. at Berlin, N. H. He later worked for that company at its Palmer, N. Y., and Niagara Falls, N. Y., mills. He came with Oxford Miami in 1937 as plant engineer and served in that capacity until 1950 when he was appointed assistant mill manager. Mr. Petzold replaces PHILIP L. HOVEY who has been transferred to the Oxford Paper Co.'s offices in New York City as staff production manager. At the same time, it was announced that BERNARD L. MERRISS, assistant plant engineer, has been promoted to plant engineer. Mr. Merriss came with Oxford Miami in 1949 from the Beckett Paper Co. in Hamilton, Ohio.

THEODORE E. KLOSS has been appointed assistant manager of Hollingsworth & Whitney Co. Northern Mills. Mr. Kloss joined the company in 1949 after a long and successful history in many other pulp and paper mills. He was graduated from the University of Maine in 1917 specializing in pulp and paper technology. Until the end of World War I, he was engaged in munitions work with Hercules Powder Co. He then joined the Abitibi Paper Co. at Iroquois Falls, Ont., as sulphite chemist. Two years later he joined the Spanish River Co., Sault St. Marie, Ont., where he worked for a period of ten years as assistant superintendent of research and development and as general sulphite superintendent.

Mr. Kloss joined the Mersey Paper Co., Liverpool, Nova Scotia, when it was under construction and with a group from Ontario, started the mill. When the mill was in operation, he acted as groundwood and sulphite superintendent. Seven years later he joined the Maine Seaboard Paper Co., Bucksport, Maine, as general superintendent and occupied this position for nine years.

Previous to joining Hollingsworth & Whitney Co., Mr. Kloss was general superintendent of the Ryegate Paper Co., East Ryegate, Vt., for four years. Mr. Kloss has taken a keen interest in the development of the industry and is one of the authors of the current issue of "Pulp and Paper Manufacture."

SET NEWSPRINT RECORD

Powell River Co. Ltd., Powell River, B. C., has broken its own record for the largest daily production for any single mill, the machines turned out 1049.7 tons in a 24-hour period. The previous maximum had been 1047.7.

It was only two years ago that Powell River had been the first mill to exceed 1000 tons, and as it had the same number of machines at that time, the subsequent increases have been through speed ups and efficiencies.

The mill opened in 1912 producing only 100 tons daily, but by 1936 production was up to 650 tons, increasing to 720 by 1948.

In 1948 the No. 8 machine was installed, designed to run at speeds in excess of 2000 feet per minute.

PRICES

The prices below reflect market quotations in New York at the mill level on standard grades. Does not include spot offerings.

PAPER AND BOARD

Standard News, Delivered Ports
Rolls, contract, per ton $114.00/116.00
Sheets ..... 130.00/ —

F.o.b. Mills, C.l. Frt. allowed, dock, N. Y.

Kraft—per cwt. 50# base wgt. OPS Ceiling CPR 88

Standard Wrapping, ctr. rolls ..	$7.75/ —
Butchers, counter rolls	8.25/ —
Standard Bag, mill rolls	7.50/ —
Shipping Sack, mill rolls	7.75/ —
Gumming, mill rolls	8.00/ —
Asphalting, mill rolls	7.75/ —
Envelope, Sub. 20, mill rolls	9.25/ —

Tissues— per ream 24x36 (480) 10 lbs. 2500 lbs or more

Wh. No. 1 Frd.	$2.25 /$2.40
Wh. No. 1 MG	2.25 / 2.40
Wh. No. 1½	1.95 / 2.05
Wh. No. 2	1.75 / 2.00
Kraft Anti-Tar 20x30	2.12 / 2.25
White Anti-Tar 20x30	2.20 / —

Toilet—per case or 100 rolls—1 M sheets

Unbleached 4½x4½	$8.00/$8.25
Unbleached 4½x5	6.60/ —
Bleached 4½x4½	10.00/12.50
Bleached 4½x5	9.85/ —
Per Case of 50 rolls—2000 sheets	
Unbleached 4½x8½	$8.00/$9.75
Bleached 4½x8½	6.95/ —
Per Case of 100 rolls—1000 sheets	
Facial, 4½x4½, 2-ply	$8.95/10.15

Paper Towels—per case of 3750

Wh. Jr. M'tif'd 9½x9½	$6.40
Br. Sr. M'tif'd 9½x12	4.60
Br. Jr. M'tif'd 9½x9¾	3.90
Br. Jr. Sgl. fold 9¾x10¾	3.95
Hlchd. 7¼x11, 24/25 rolls	$7.00/7.55

Manila, per cwt.

No. 1 Jute Tag, 100-lb., sheets* ..	$20.55/22.55
Reg. Jute M.F. 40-lb., sheets* ...	19.50/21.50
Wrapping Manila	9.75/10.50
Printing Manila	10.50/12.00

* Less usual allowance for rolls.

Gummed Tape—per bdl., 500 bdls. or more

90-lb. 375 ft. GSI	$7.20 / —
60-lb. 600 ft. GSI	7.20 / —
35-lb. 800 ft. GSI	8.28 / —
35-lb. 500 ft. GSO	6.21 / —

MARKET WOOD PULP

Fourth Quarter Contract Prices. Per Short Air-Dry Ton

	Varying freight allowances		On Dock Atlantic Ports		
	*U. S.	Canadian	*Swedish	*Finnish	*Norwegian
Groundwood	$93.50/ —	‡$95.00/100.00			
Sulfate, Bleached	145.50/ —	190.00/200.00	$230.00/ —	$230.00/ —	$230.00/ —
Semi-bleached Sulfate ..	140.00/ —				
Sulfate, Unbl.	132.50/ —	145.00/175.00	200.00/ —	200.00/ —	
Sulfite, Blchd.	140.00/ —	160.00/175.00	225.00/ —	225.00/ —	225.00/ —
Sulfite, Unblchd.	132.50/ —	150.00/160.00	200.00/ —	200.00/ —	
Sulfite, Unbl'd (Glassine)		164.50/ —			
Soda, Blchd.	140.00/ —	155.00/160.00			
Sulfite Screenings	72.50/ —				
Sulfate Screenings	57.50/ —				
Groundwood Screenings ..	60.00/ —				
Unbichd Sulfate Siderans	132.50/ —				
Stand. News. Siderans..	92.50/ —	106.00 —			

* OPS Ceiling, CPR 49 ‡ F.o.b. Shipping Point.

Boards per ton—

Filled News	$107.50/ —
Plain Chip	105.00/107.50
Blchd. Mix. L-d. Chip	147.50/ —
White Pat. coated .020	170.00/ —
Kraft Liners 42 lb.	115.00/117.50
Kraft Corr. .009	122.50/126.00
Binders Boards	137.50/140.00

The following prices are representative distributors' resale prices:

Rag Content Bonds and Ledgers—White, 20 lb.

Bonds	4 Cms.
	per cwt.
100% Rag Ex. No. 1	$70.45/$75.90
100% Rag	62.65/ —
75% Rag	48.15/ —
50% Rag	38.90/ —
25% Rag	31.65/ 33.00

Ledgers	4 Cms.
	per cwt.
100% Rag Ex. No. 1	$72.65/$72.90
100% Rag	63.90/ —
75% Rag	49.40/ —
50% Rag	40.20/ —
25% Rag	33.00/ 34.30

Sulphite Bonds and Ledgers
White, 20 lb.

Bonds	4 Cms.
	per cwt.
Watermarked	$19.00/$20.50
Plain	18.40/ 19.50

Ledgers	4 Cms.
	per cwt.
Watermarked	$20.30/$21.80
Plain	19.35/ 20.80

White Book

Conversion Coated	Case
	per cwt.
No. 1	$23.90/$24.60
No. 2	22.15/ 23.40
No. 3	21.90/ 22.40
Machine Coated	
No. 1	$18.40/$18.90
No. 2	16.65/ —
Uncoated	
No. 1 Antique (Watermarked)...	$18.65/$19.65
Offset	18.65/ 19.90
A Grade E. F.	18.10/ 19.90
A Grade S. C.	18.65/ 19.40
B Grade E. F.	18.40/ —
B Grade S. C.	17.40/ 19.15

‡ Indicates a price change.

WASTE PAPER MARKET

Prices to mills, per ton, f.o.b. cars shipping point (includes brokers' fee.) These quotations are an indication of the price range in each market on the date specified, as gathered from major dealers: Because of market instability, ALL PRICES ARE STRICTLY NOMINAL.

	New York	Philadelphia	Boston	Chicago
	Oct. 11	Oct. 5	Oct. 13	Oct. 2
No. 1 Mixed Paper	$14.00/ 15.00	$10.00/ 12.00	— / 13.00	$12.00/ —
No. 1 News	16.00/ 17.00	12.00/ 14.00	— / 15.00	15.00/ —
Over-issue News	20.50/ 22.00	20.00/ —	20.00/ 22.00	18.00/ —
Corrugated Containers	20.00/ 24.00	18.00/ 20.00	19.00/ 24.00	20.00/ —
Double Kraft Ld. Corr. Cuts ...	55.00/ 60.00	50.00/ —	55.00/ 70.00	55.00/ —
100% Kraft Corr. Cuts	65.00/ 90.00	80.00/ —	90.00/ —	85.00/ —
Used Sugar & Flour Bags	70.00/ 75.00	50.00/ —	45.00/ 70.00	50.00/ —
Super Resorted Br. Kraft	Nominal	65.00/ 70.00	60.00/ 70.00	50.00/ —
New Br. Kraft Env. Cuts	120.00/130.00	125.00/ —	120.00/140.00	100.00/ —
New Br. Kraft Cuts	100.00/125.00	115.00/ —	110.00/140.00	90.00/ —
No. 1 Gdwd Shvs.	60.00/ 70.00	16.00/ 50.00	65.00/ 75.00	35.00/ —
White Newsblanks	75.00/ 80.00	50.00/ 70.00	70.00/ 80.00	55.00/ —
No. 1 Flyleaf Shvs.	65.00/ 70.00	50.00/ 65.00	85.00/100.00	60.00/ —
No. 1 Soft Wht. Shvs.	125.00/145.00	135.00/145.00	140.00/165.00	125.00/ —
Super Soft Wht. Shvs.	160.00/175.00	150.00/165.00	155.00/180.00	135.00/ —
Hd. Wht. Shvs.	165.00/180.00	170.00/180.00	170.00/180.00	140.00/ —
Hd. Wht. Env. Cuts	180.00/200.00	190.00/210.00	190.00/200.00	150.00/ —
New Manila Env. Cuts	100.00/135.00	130.00/140.00	130.00/155.00	65.00/ —
Col. Tab Cards	90.00/ 95.00	75.00/100.00	85.00/110.00	85.00/ —
Manila Tab Cards	120.00/140.00	125.00/140.00	140.00/160.00	100.00/ —
No. 1 Mixed Ledger	85.00/ 95.00	75.00/ 85.00	87.00/ 90.00	95.00/ —
White Ledger	105.00/115.00	105.00/115.00	95.00/110.00	110.00/ —
No. 1 Book & Mag.†	33.00/ 37.50	25.00/ 30.00	30.00/ 50.00	17.00/ —
No. 1 Rep'd. Hvy. Books‡	43.00/ 50.00	30.00/ 40.00	45.00/ 60.00	40.00/ —

† Includes Time & Life; no coarse groundwood. ‡ Not to exceed 10% groundwood.

RAG MARKET

New Domestic Cotton Cuttings
OPS Ceiling Price, CPR 28
Delivered Mill Basis

Add 7½% Dealer Commission

No. 1 White Shirts	$21.00
No. 1 Unblchd. Muslins	21.00
Blchd. & Unblchd. Underwears	21.00
Blchd. Canton Flannels	21.00
No. 1 Light Silesias	16.00
No. 1 Light Prints	11.50
No. 1 Blue Overalls	14.50
Suntan Khakis	11.50

Add 10% Dealer Commission

Fancy Shirts	$10.00
Indigo Blues	10.00
Mixed Khakis	8.00
Corduroys	8.00
Cottonades	8.00
No. 1 Washables	6.50

Old Domestic Cotton Rags
(Prices to Dealers, F.o.b. Ship. Pt.)

	Per 100 lb.
Mixed White	$5.00/$5.50
Cotton Pants & Overalls	4.25/ 5.00
Thirds and Blues, Repacked	4.00/ 4.25
No. 1 Roofing Rags	nominal
No. 2 Roofing Rags	nominal
No. 3 & 4 Roofing Rags	nominal

Bagging
(Prices to Dealers, f.o.b. N. Y.)
PRICES NOMINAL

	Per 100 lb.
Foreign Gunny	$5.00/$5.50
Domestic Gunny, No. 1	5.00/ 5.50
Heavy Wool Tares	5.50/ 6.00
Foreign Manila Rope	9.00/ 9.25
Domestic Manila Rope	9.00/ 9.25
Jute Strings	6.00/ 6.50
No. 1 Sisal Strings	8.00/ 8.25
Paper Mill Tares	4.25/ 4.50
Foreign Scrap Burlap	4.25/ 4.50
Domestic Scrap Burlap	4.75/ 5.50
Austr. Wool Pouches	7.00/ 7.50
New Burlap Cuttings	7.00/ 7.50

MATERIALS

Aluminum sulfate:		
comm. bags, wks. cwt.	1.65	
iron-free c.l.	3.25	
Alcohol, ethyl:		
tax free, dns. c.l. gal.	1.01	/ 1.05½
dnld. East Miss.		
Alcohol, methyl:		
Synthetic, Zone 1, dns. c.l. fr. nld. gal.	.44	
Casein, acid prec.:		
dom. sh. pt. c.l. lb.	.36	/ .41
imp. ex. dock lb.	.28	/ .33
Caustic soda:		
c.l. wks. solid, 76%, cwt.	3.35	
flak. & grd. 100-lb. drums	3.75	
liquid 50% tanks	2.55	
liquid 70% tanks	2.65	
China clay:		
tom. air-float. filler, c.l. wks. ton	10.00	
water-washed, lump, filler ton	11.00	
coating ton	17.00	/30.50
imported, ex whse...short ton	15.20	/28.35
Chlorine:		
single-unit tanks, works cwt.	2.70	
multi-unit cwt.	3.26	/ 4.40
Formaldehyde:		
USP, ink. dns, c.l. wks. lb.	.0625/	.0675
t.c.l., E. wks.	.0675/	.0725
Fuel oil:		
Bunker C, No. 6 Cal. bsy tanks, refinery bbl.	1.95	/ 2.15
light bbl.	2.00	/ 2.25
Hydrogen peroxide:		
USP, 35% clys. E. of Miss. lb.	.23½/	.26½
Lime:		
hydrated, bags, wks. ton	13.50	
Rosin:		
B gum, drms, c.l. Savan. cwt.	7.00	/ 9.08*
G, H, I, K cwt.	9.07	/ 9.49*
FF, wood, dn. cwt.	6.80	/ 7.30*
*OPS Ceiling, CPR 52.		
Rosin size:		
70%, gum & pale grds, tank cars, south, sh. pt. cwt.	7.20	/ 7.35
Salt cake:		
dom. bulk, c.l. wks. ton	17.00	
wks. frt. all. ton	20.00	/22.00
Soda ash:		
light, 58%, bags, wks.	1.50	
bulk cwt.	1.30	
Sodium silicate 40°:		
turbid. c.l. wks. cwt.	1.30	/
t.c.l. wks.	1.60	/ 1.85
Sodium peroxide:		
dns. c.l. E. of Miss. lb.	.21	
t.c.l. dn. lb.	.21½/	.22
Soybean, protein:		
chem. ind, wks. c.l. lb.	.24	/ .25
Class. and Chic.		
Sulfuric acid:		
60° Be. clys. c.l. wks. cwt.	1.75	/ —
t.c.l. wks. cwt.	2.05	/ 2.85
Sulfur:		
crude, c.l. mines, contract, long ton	21.00	/22.00
f.o.b. vessels Gulf ton	22.50	/23.50
Sulfur dioxide:		
"quid, comm. cyl. wks. lb.	.09	
multi-unit cars lb.	.0533	
Starches:		
pearl corn, bags, c.l. wks. cwt.	6.09	/ —
white dextrines, c.l. wks. cwt.	7.48	/ —
potato, Idaho, c.l. wks. cwt.	5.75	/ —
potato, Maine, c.l. wks. cwt.	6.00	/ 6.25
tapioca, conv. dextrines cwt.	7.75	/ 8.00
low, Siam, on dock N.Y.	5.75	/ — nominal
Talc:		
domestic, 50-lb. sacks, c.l. wks. ton	23.00	/30.96
Titanium dioxide:		
anastase, c.l. dnld., bags lb.	.21	/ .21½
t.c.l. dnld. lb.	.22	/ .23½
rutile, c.l. dnld. lb.	.23	/ .23½
t.c.l. dnld. lb.	.24	/ .24½

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Measures the internal tearing resistance of paper, textiles and sheet materials in gram-centimeters. Dependent upon gravity for its operation; the readings must be correct. Any two Elmendorfs anywhere will perform alike under like conditions. Tearing resistance is the most practical test for predicting wearing quality. It is a measure of service. T.A.P.P.I., A.S.T.M. and Federal Standard. Made in many capacities.

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Philadelphia 44, U.S.A.

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NEW LITERATURE

Calloway Associates, 172 Summer St., Boston 10, Mass. Book, "Barrell's Paper Annual, Vol. X." The 1951-52 complimentary edition contains a revised directory of the officials of the 33 industry associations; a revised edition of "Paper Trade Terms" by William Bond Wheelwright; also features Mr. Wheelwright's article, "Keeping Pace With Papermaking," which traces methods of drying paper to the present continuous system. Available to paper manufacturers only.

The Brookings Institution, Washington 6, D.C. Book, "Major Problems of United States Foreign Policy, 1951-52." The fifth in a series of annual volumes dealing with foreign policy problems, and a part of the program of research and education in international relations carried on since 1946 by the Institution's International Studies Group under the direction of Leo Pasvolsky. The volume includes a problem paper giving a detailed analysis of the problem of collective security under the United Nations General Assembly, developed in substantially the same way in which similar problems are dealt with by policy-making officials in the Government. Illustrated with maps and charts, 479 pp., price $1.50 paper bound, $3.00 cloth bound.

American Car and Foundry Co., 30 Church St., New York 8, N.Y. Pamphlet, "A.C.F. Lubricated Plug Valves." Technical plus sales copy.

Associated Factory Mutual Fire Insurance Companies, 184 High St., Boston 10, Mass. Bulletin, "New Developments in Automatic Sprinkler Protection As Applied to Storage of Rubber Tires and other High-Piled Combustible Storage." Features the wide angle automatic spray nozzles, and the improved upright automatic sprinkler.

Baker Industrial Truck Division of the Baker-Raulang Co., 1250 West 80th St., Cleveland 2, Ohio. Bulletin 1350-1, "Baker Fork Truck Attachments." Describes and illustrates the new 4-purpose carriage.

Branson Instruments, Inc., Dept. V-E, 436 Fairfield Ave., Stamford, Conn. Bulletins, "Audigage Thickness Tester," Model FMSS-5. Technical plus sales copies.

Brookfield Engineering Laboratories, Inc., Porter St., Stoughton, Mass. Data Sheet 051, "The Brookfield Helipath Stand for use with Standard Models of the Brookfield Synchro-Lectric Viscometer." Tells how this stand permits the testing, study and control of highly plastic materials, regardless of degree of thixotropy.

Dept. of Scientific and Industrial Research, Charles House, 5-11 Regent St., London, S.W.I. Book, "Water Pollution Research 1950." Includes the report of the Water Pollution Research Board and that of the Director of the Laboratory on work carried out during the year. Deals with: (1) Biological Treatment of Sewage; (2) Industrial Waste Water; (3) Toxic Waste Water; (4) Thames Estuary Survey.

Ex-Cell-O Corp., Detroit 32, Mich. Bulletin, "Pure-Pak Your Personal Milk Container." A report by dairymen in 17 states who have switched from glass bottles to 100 percent Pure-Pak container operation.

Dept. P. Eutectic Welding Alloys Corp., 40-40 172 St., Flushing, New York, N.Y. Book, "1951 Data File of Defense and Maintenance-Conservation Welding Problems." Contains over 100 pp. of illustrated technical data on maintenance and repair welding problems and procedures.

Henry A. Gardner Laboratory, Inc., 4723 Elm St., Bethesda 14, Md. Bulletin No. 101, "1951 Model Glossmeters." Bulletin No. 102, "Gallons Content Nomograph for 55-Gallon Drums." Bulletin, "New Tag Humidicator." Bulletin GEC-339D.3, "Zahn Viscosimeter for Controlling Viscosity in Factory and Laboratory." Sales and technical copy.

Builders-Providence, Inc., 383 Harris Ave., Providence 1, R.I. Bulletin No. 230-H4, "Chronoflo Telemeters." Lists the many features of the device, describes the operation of the transmitter and receiver, and shows photographs and diagrams to illustrate the mechanism and installations.

A PUBLICATION IS KNOWN BY THE COMPANIES IT KEEPS

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of

Paper TRADE JOURNAL
REG. U.S. PAT. OFF.

are

Smith & Winchester	**Pusey & Jones**
Shuler & Benninghofen	**Bulkley Dunton**
Bagley & Sewall	**Perkins Goodwin**
Rice Barton Corporation	**Lobdell United**
H. Waterbury	**American Cyanamid**
Holyoke Machine Company	**Taylor Stiles**
Solvay Sales	

Although some of the names have changed such as Taylor-Stiles (Taylor-Corsey) Solvay Sales (Wing & Evans) RT Vanderbilt—(McNamee Clays), these same advertisers were using space in the 1876 issue of the "Journal" 75 years ago and probably many others whose names have been changed and we are unable to trace them.

At the turn of the Century fifty years ago—present advertisers such as—

Farrel Birmingham	**Grinnell Company**	**Biggs Boiler Works**
Black Clawson	**Downingtown**	**Jeffrey Mfg. Company**
Moore & White	**Appleton Machine**	**Sandy Hill**
BF Goodrich	**Dilts Machines**	**Beloit Iron Works**
Babcock & Wilcox	**ED Jones**	**Buffalo Steam Pumps**

were using the "Paper Trade Journal" to interest the pulp and paper mills just as they are doing today.

WHO'S WHO ISSUE NOVEMBER 30, 1951

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CONSULTING ENGINEERS
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TAYLOR-STILES Company
for both large and small PAPER MILLS
Capacities from one to five tons an hour.
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INTERNATIONAL WIRE WORKS
Fourdrinier Wires
MENASHA, WISCONSIN

DE LAVAL stock pumps

DE LAVAL Steam Turbine Company
TRENTON 2, NEW JERSEY

APPLETON Felts
FOR SERVICE
APPLETON WOOLEN MILLS
APPLETON WISCONSIN

THE ACCEPTED STANDARD BRUSHES
Industrial BRUSHES
For All Paper Needs
Gus Riedel and Son
Manufacturers
KALAMAZOO, MICH.

Harris-Seybold Co., 4510 E. 71st St., Cleveland 5, Ohio. Booklet, "Annual Report June, 1951." Features material produced with Harris-Seybold equipment in graphic arts industry, such as blotters, books, booklets, folders, house organs, magazines, school annuals, etc.

SUPPLIERS

PLASKON DIVISION, LIBBEY-OWENS-FORD GLASS CO. has promoted Donald Delaney to sales manager for coating resins, and Victor W. Ginsler to assistant sales manager for that group of products.

Mr. Ellis stated that the moves would bring added technical experience and ability to the sales direction of these products and should not only provide users with greater technical service, but increase the degree of liaison between Plaskon sales, research and production activities, a coordination necessary to the continued development and more efficient production of new and improved Plaskon resins.

THE PHILADELPHIA QUARTZ CO. announces the issuance of a process patent on sterilization and clarification of raw water. U.S. Patent No. 2,567,285 was granted recently to Harold R. Hay and assigned to the Philadelphia Quartz Co.

The patent covers the company's process for preparing an activated silica sol as a coagulant aid. Chlorine is the acid reactant for neutralizing the alkalinity in N® Silicate of Soda. The activated silica sol is used in conjunction with a coagulant such as alum, ferric salts or lime to increase speed of floc formation, floc size, density and strength for greater removal of impurities from raw water. Result is clear water and longer filter runs.

Either batch or continuous methods of application may be chosen for the process. The company will grant a license to the user of the process, without royalty fee.

CUTLER-HAMMER, INC., Milwaukee, Wis., has appointed A. J. Shradel as manager of their Seattle district sales office succeeding T. N. Bristow who is retiring after 23 years of service with Cutler-Hammer — the last 9 years of which he served as Seattle district sales manager.

Bert L. Pearce

LINK-BELT CO. has appointed Bert L. Pearce as chief engineer of the Ewart plant in Indianapolis to succeed Charles R. Weiss, who has retired after 42 years' service at the company's Philadelphia and Indianapolis plants. Russell T. Sweeney has been appointed assistant chief engineer.

INTERNATIONAL PRINTING INK DIVISION of Interchemical Corp. was changed, effective October 1, to Interchemical Corp. — Printing Ink Division.

The trade mark IPI will be retained as before on stationery, calling cards, truck identification, advertising and sales promotion material.

PLASKON DIVISION, LIBBEY-OWENS-FORD GLASS CO. has established a New England office for glues and industrial resins to be located at 1 High Street, Boston, and headed by Charles E. Walker.

The Boston office will cover new and expanded sales territories in New England, New York and Eastern Pennsylvania for Plaskon industrial resins which are supplied principally to the plywood, furniture and paper industries. These materials include aminoplast wet-strength resins for paper, boxboard adhesive resins, a broad range of liquid and powdered wood glues, plus polyester laminating resins and foundry resins.

COLUMBIA-SOUTHERN CHEMICAL CORP. sales organization has appointed H. W. Gleichert assistant to the vice-president in the new sales organization. E. W. Haley, formerly located in New York City, will move to headquarters, at 632 Duquesne Way, Pittsburgh, Pa., as Columbia-Southern director of sales. A. W. Reynolds was made administrative assistant to the vice-president in charge of sales.

The moves follow the recent change in corporate name when the organization became the Columbia-Southern Chemical Corp., a subsidiary of the Pittsburgh Plate Glass Co.

COMMONWEALTH ENGINEERING CO. OF OHIO has appointed Malvern J. Hiler president.

He has served for the last three years as executive vice president.

MINNEAPOLIS-HONEYWELL REGULATOR CO. has named W. J. Blackburn, industrial manager of the Denver office, succeeding Donald W. Larcen, who was recalled to active military duty. Donald D. Baker has been made industrial manager of the Kansas City office, succeeding Mr. Blackburn. Mr. Baker, formerly at Wichita has been replaced there by Bernard J. Alberts from New Orleans. Jack F. Smith has been appointed industrial manager at Tulsa, from which city he will coordinate the company's industrial sales activities in the Tulsa, Oklahoma City and Amarillo areas under the direction of Reginald Walker, branch manager. Pilgrim McRaven will handle industrial interests in Oklahoma City. The company has named William H. Sisson power industry manager.

Mr. Sisson, now industrial manager of the company's Indianapolis office, will promote product sales in the central station and power fields. He will make his headquarters at Philadelphia, effective November 1. George M. Rossiter is being transferred from the Milwaukee office to Indianapolis where he will become industrial manager succeeding Mr. Sisson.

ALLIS-CHALMERS MANUFACTURING CO. has combined the electrical and mechanical power departments into a power department under the management of R. M. Casper.

Mr. Casper had been manager of Allis-Chalmers electrical department since 1949. He joined the company in 1936 as a sales representative in the Detroit office. In 1942 he was named sales engineer in charge of motor and generator sales in Allis-Chalmers electrical department, and in 1947 he became manager of the motor and generator section.

FINANCIAL

West Virginia Pulp and Paper Co. on September 24 announced plans to borrow $20 million to help finance the company's continuing program of plant improvement and additions.

The company proposes to raise the money by issuing debentures in that amount, to be repaid in successive annual installments beginning August 1, 1955, with the final balance due October 1, 1971. A group of investment bankers in New York, headed by Harriman, Ripley and Company, Inc., is expected to underwrite the issue.

The continuing needs and opportunities, the company said, especially the need for better control of quality and costs plus the company's obligations to meet the increasing demand for its products, justify going ahead with this policy of aggressive modernization and development as rapidly as practicable. Present plans call for the expenditures of as much as an additional $50 million during the next few years, including the $20 million covered by the proposed debentures, with projects of varying importance contemplated for each mill. To date, chiefly as the result of a conservative dividend policy which allowed the management to retain for this purpose a large part of earnings since the war, the company has been able to finance the program out of its own pocket. Due to the impact of high taxes and rising costs, however, there is no assurance, the company said, that earnings will provide new money as rapidly as may be needed. The purpose of the present borrowing, it was explained, is to obtain ready funds in sufficient amount to assure steady progress.

In addition to the proposed debentures, the company also recently arranged with a number of banks for a stand-by credit of $15 million for the next three years, against which it can draw on notes maturing not later than June 30, 1955, if and as further funds are needed. This replaces a similar stand-by credit for $10 million previously maintained by the company but not used.

The present issue is the first outside financing undertaken by the company since it borrowed $10 million in 1937 to construct the mill at North Charleston, S. C. This was reduced to $8 million in 1939 and repaid in full early in 1944.

At several mills major new projects are already under way. Preliminary

Money-Saving Tip from *Kalamazoo*

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It isn't always necessary to replace old concrete tanks that are pitted and letting sand get in your stock. Such tanks make an ideal base for Kalamazoo Glazed Tile. Gives you a "new" tank *at low cost* that will last for years and years without attention. Tile lets you modernize your chests and improve agitation with midfeathers and rounded corners. Write for full particulars—no obligation, of course.

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Modern Recovery Methods, designed and engineered by Ferguson, will stop profit leaks by turning WASTE into ASSETS.
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MISCO
STAINLESS STEEL CASTINGS
FOR ALL EQUIPMENT EXPOSED TO CORROSION BY SULPHITE ACIDS OR OTHER CORROSIVE AGENTS
MICHIGAN STEEL CASTING CO.
DETROIT 7, MICHIGAN

engineering and design work is either complete or in progress for most of the other projects included in the $50 million figure previously mentioned. Aside from construction already in progress, however, no rigid schedule is projected. The timing of each step in the program, it was explained, and the priority of individual projects, will depend on a great variety of factors, including the availability of construction material and supplies, the urgency in the demand for particular products, the effect of taxes and inflation and, primarily, how much money the company is able to earn and retain out of earnings as it goes along.

H. R. MacMillan Export Co., Ltd., net earnings increased during the first nine months of this year by over $5 million, as compared to the full year of 1950.

Boosted by the new Nanaimo pulp mill, earnings for this year to date are approximately $12,868,000 against $7,412,381 for all of last year.

Keyes Fibre Co. has declared a quarterly dividend of 40 cents per share on the common stock, payable December 1, 1951, to stockholders of record at the close of business November 9, 1951. The directors also declared a regular quarterly dividend of 35 cents per share on the first preferred stock 5.6 percent series, of $25 par value per share, payable January 1, 1952, to stockholders of record December 10, 1951; and a regular quarterly dividend of 75 cents per share on the Class A stock, payable February 1, 1952, to stockholders of record January 11, 1952.

St. Regis Paper Co. reports net sales for the nine months ended September 30, 1951, at $146,078,366, compared with $109,200,097 in the like period of last year. Net income, after provision for Federal taxes, for the nine months period amounted to $12,796,676, against $7,003,924 for the corresponding nine-month period of 1950.

The company declared a regular quarterly dividend of 25 cents a share on the common stock, payable December 1, 1951, to stockholders of record November 2nd. The regular quarterly dividend of $1.10 per share on the preferred stock was declared, payable January 1, 1952, to holders of record December 7, 1951.

Keyes Fibre Co., in spite of recession in third quarter, reports an increase in net sales of approximately 21 percent for the first nine months of this year over the corresponding period of 1950 reaching $8,172,983 compared to $6,758,175 a year ago. Profit before Federal income tax amounted to $2,544,892 for the nine months' period as compared to $1,859,700 in 1950, an increase of approximately 37 percent and after taxes $967,059 and $1,090,931 respectively. Net profit after taxes was $195,479 for the third quarter of 1951 as compared to $487,793 in the corresponding quarter of 1950. Net sales were $2,115,381 for the period as compared to $2,558,743 in 1950.

In the opinion of the management the recession in sales is temporary and results from the desire of distributors to curtail inventories, rather than to reduced consumer demand for the company's products. The immediate trend of sales appears favorable.

Comparison of net profit both for the third quarter and the nine months to September 30 are distorted by the fact that no excess profits taxes are included in the 1950 figures due to the late enactment of the Excess Profits legislation. Federal taxes for the 1951 periods are figured at the maximum over-all rate of 62 percent, although it is expected that increases now pending will be retroactive. Results for 1951 also reflect increases in cost of labor and materials.

Up to September 30, 1951, 32,429 shares of first preferred stock $25 par, 5.6 percent series, had been exchanged for 40,494 shares of common stock in accordance with the conversion privilege providing for the exchange of 1¼ shares of common for each share of first preferred. Of the original issue of 100,000 shares of the latter stock, 67,571 shares remain outstanding.

Heyden Chemical Corp. earnings in the first 9 months of 1951 after dividend requirements on the preferred stock were $1.80 per share on the 1,066,002 common shares outstanding, 65 cents more per share than the $1.15 per share earnings in the like period of 1950 on the 1,066,010 shares of common stock outstanding as of the end of September, 1950.

Net income after taxes in the first 9 months period of 1951 was $2,134,430 compared with $1,460,929 for the like period in 1950 at the lower tax rate applicable to that period. Income before taxes in the first nine months of 1951 was $5,135,081 as compared with $2,648,355 in the same period of 1950.

The total sales of the first nine months of 1951 were $22,926,775 as compared to $19,845,628 for the comparable period in 1950. The 1951 sales figures represent a more favorable increase than comparative figures indicate because the sales total for the first nine months of 1950 included sales of $2,800,000 of Heyden's Rumford and Memphis divisions. The Rumford Division, including the Rumford Co., was sold on June 30, 1950, and the Memphis plant was sold on September 30, 1950.

Increased production capacity for pentaerythritol and other phases of the corporation's $8,500,000 general expansion program are expected to become available, in part, in the fourth quarter. Expansion of research facilities at the Chemical Research Division at Garfield, N. J., and the

Antibiotic Research Division at Princeton, N. J., also are expected to be partly completed during the fourth quarter.

FORESTRY

S.A.F. ANNUAL MEETING FEATURES SOUTHERN FORESTRY

More than 1,000 foresters from all over the United States and Canada will convene for a four-day review of the forest resource situation and the progress being made in growing and utilizing timber at the annual meeting of the Society of American Foresters in Biloxi, Miss., December 12-15.

Among those giving addresses will be Peter Watzek, Crossett Industries, Crossett, Ark., who will speak on "Integrating Production and Industry"; William J. McGlothlin, director of the Board of Control for Southern Regional Education, Atlanta, Ga., on "Regional Education in Forestry"; C. D. Dosker, Gamble Bros., Louisville, Ky., on "Trends in Hardwood Utilization"; and William Duerr, U.S. Forest Service, Washington, D.C., on "Forest Future of the South."

"Southern forestry will be on display," according to Charles F. Evans of Atlanta, Ga., president of the Society. "Visitors traveling by car have been furnished a guide map and descriptions of several hundred forest properties and mills where advanced practices in forestry are being worked out. Foresters enroute to and from the meeting will thus have an opportunity to see good forest and mill operations at first-hand. Guided tours of interesting plants and operations in the vicinity of the convention city of Biloxi are planned for those in attendance at the meeting."

Forestry educators will discuss the place of adult education in the forestry program. Forest managers will discuss the role of prescribed fire in southern forest management. Consulting foresters will consider the licensing of foresters in the public interest. Water managers will consider the role of forests in the management of water. "There will be discussions," said Mr. Evans, "in one phase or another of nearly every important question facing the foresters today."

WILDLIFE NOT INJURED BY NEW DEBARKING CHEMICAL

North Adams, Mass.—New chemical poisons used to kill and debark pulpwood trees do not affect wildlife, and the pulpwood industry may be able to make substantial reductions in labor and handling costs by their use. Edwin M. Rosasco has completed an entire summer's research work done under a $1,000 fellowship grant from the New York State College of Forestry, where he received a B.S. degree in 1950. His report on the wildlife project was given recently at a two-day meeting of college and pulp-paper industry representatives at Long Lake, N. Y., a few miles from the forest where the experimental work was performed.

Wildlife agencies, however, feared that bark-eating animals such as deer and rabbits, might die from feeding on the treated trees. In order to determine the effect on wildlife, the College of Forestry and nine companies in the pulp-paper field sponsored a project to study the subject. Mr. Rosasco and a bio-chemist were assigned to the project, and spent the summer in trapping animals, feeding them varying amounts of the chemicals, and measuring the amount of arsenic in their tissues and organs. Although it had been believed that some sort of repellent would have to be developed to keep animals away from the girdled trees, it was found that the poisons acted as their own repellent, since animals avoid both the treated trees and the chemicals used to kill them.

FIRE DAMAGE IN CANADA

A higher than average rainfall for the 1951 fire season in Canada held most parts of that country to a very favorable fire damage year. The West Coast province of British Columbia, however, suffered one of the worst years in its history and by far the worst since the devastating year of 1938.

In the Maritimes summer rains cut damage more than 60 percent over the usual mark. Even Newfoundland, which suffered a dry spell, had only 15 percent of the losses posted for the 1950 season. Quebec damage also was slight, and Ontario had 13 percent less damaged timber than last year.

Prairie provinces reported that tourists had been very cooperative this year, and coupled with some summer precipitation, this kept the damage in merchantable stands well below past averages.

Only British Columbia, and there especially in the coastal region, suffered drastic losses in working time, production and actual timber burned.

Some 12,000 loggers in 1600 camps were held up for nearly two solid months, creating a loss in revenue of about $40 million. Great loss was also suffered in the fishing industries and future runs may be jeopardized by low waters during the spawning period.

C. P. P. A. SCHOLARSHIPS

The Western Division of the Canadian Pulp and Paper Assn. located in Vancouver, B. C., has sponsored three scholarships to total $1500. Awards have been made to three graduates from the University of British Columbia in forestry subjects. The $500 fellowships will be used for post-graduate studies in outside universities.

John H. Gilbert Smith of Kamloops, B. C., will attend Yale University to specialize in forest management; David

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AMERICAN PAPER AND PULP ASSOCIATION'S PAPER PRODUCTION RATIO REPORT

(Production as per cent of normal capacity)

COMPARATIVE WEEKLY SUMMARIES

	Sept. 15	Sept. 22	Sept. 29	Oct. 6	Oct. 13
1951	99.9	99.5	100.3	100.2r	100.8
	Sept. 16	Sept. 23	Sept. 30	Oct. 7	Oct. 14
1950	103.2	100.3	100.6	99.9	101.7

COMPARATIVE MONTHLY SUMMARIES

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year Avg.
1950	92.6	95.6	96.7	95.4	96.4	97.7	85.3	99.6	96.1	101.0	99.6	91.2	95.8
1951	99.3	101.3	101.9	102.8	102.5‡	100.2‡	89.4‡	98.9‡	94.8‡				

‡ Preliminary.
r Revised.

COMPARATIVE YEARLY SUMMARIES

	1944	1945	1946	1947	1948	1949	1950	1951
Year to Date	88.2	88.8	100.8	103.8	97.0	86.8	94.5	99.7
Year Average	88.1	89.4	101.1	104.3	96.2	88.6	95.8	

PAPERBOARD OPERATING RATIOS†

	Sept. 15	Sept. 22	Sept. 29	Oct. 6	Oct. 13
1951	94	90	90	88	90
	Sept. 16	Sept. 23	Sept. 30	Oct. 7	Oct. 14
1950	100	101	103	100	102

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Year Ave.
1950	88	82	91	92	91	94	82	100	96	102	101	93	94
1951	102	105	104	103	104	103	84	94	86				

All of the above data is based on tonnage reported to American Paper and Pulp Association. Does not include mills reporting to National Paperboard Association, except in isolated cases where both paper and paperboard are produced and separate tonnage figures are not readily available. Does not include mills producing newsprint exclusively.

Note: The black line on the chart shows the ratio through December 1950 on the basis of 6-day capacity. Beginning with January 1950 the ratio is shown on the new basis of normal 6 and 7-day capacities by the colored line. Paperboard operating ratios continue on the basis of a 6-day week.

† Per cent of operation based on "inch-hours" reported to the National Paperboard Association.

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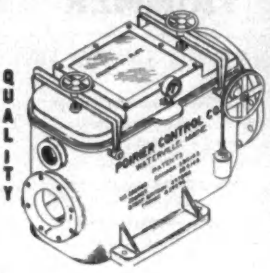

DEPENDABILITY

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POIRIER CONTROL CO.

WATERVILLE, MAINE

Wilson of Victoria will attend the University of California; and Jack Burch of Cranbrook will go to Syracuse University for study in forest entomology.

ADOPT INCENTIVE PLAN

VANCOUVER, B. C. — At an extraordinary meeting of shareholders on October 16, Canadian Western Lumber Co., Ltd., adopted a unique incentive plan for its key employes. In an effort to encourage supervisory employes to maintain an active interest in the company, and to provide remuneration over and above salaries, pension plans, etc., an additional 127,000 shares of no par value capital stock was voted. This stock may be purchased by employes at the market price based on August 9, 1951 (under $10 per share), with a 5 percent cash payment and at least an additional 5 percent during the following year. The balance is payable on such terms as the directors shall decide. The idea is to provide an interest in the company without undue financial strain.

The purchaser must agree not to assign or part with any interest until the shares are fully purchased without the permission of the directors.

Canadian Western Lumber Co. is at present in partnership with Pacific Mills, Crown Zellerbach's Canadian subsidiary, in the $40 million Elk Falls Co. Ltd. newsprint development at Duncan Bay on the east coast of Vancouver Island.

OBITUARIES

Isaac W. Kellam, 65, who started a paper box plant in 1914 and was the founder of the Brampton Paper Box Co., died at his home in Brampton, Ont., on October 11. He is survived by his widow, two sons and one daughter.

Mrs. Mary Pruyn Hoopes, widow of Maurice Hoopes, former president of Finch-Pruyn, Inc., died at her home, 153 Warren street, on October 16. Mrs. Hoopes was born in Glens Falls, N. Y., July 12, 1872, the daughter of the late Samuel and Eliza J. Pruyn.

A. Georges Jacques, 53, former general manager of the St. Lawrence Paper Mills Corp., Ltd., died October 11. Well known in the pulp and paper industry, he retired several years ago because of ill health.

Charles J. Kay, one of the pioneers of British Columbia's paper industry died recently in Vancouver, B. C. The founder of Columbia Paper Co. Ltd. in 1911, Charles J. Kay, retired president of the company, enjoyed wide friendship in the industry. In 1941 he was named "Good Citizen" of Vancouver, and his jolly, modest personality carried him into many branches of community and philanthropic work. He was an ardent supporter of good forestry practice.

Arnold Eamer, 50, assistant office manager of Provincial Paper Ltd. at Mille Roches, Ont., died of a heart attack as he was entering General Hospital in Cornwall, Ont., October 16. He became ill while at work. He had been associated with the paper mill for 30 years. He is survived by his widow.

Irving McHenry, 66, president of Mid-States Gummed Paper Co., Chicago, passed away at his home in River Forest, Ill., on October 2.

In 1916, Mr. McHenry founded the Mid-States Gummed Paper Co. The company was incorporated on November 1, 1916, and manufacturing operations started in a small loft at 312 Union Park Court, Chicago, on January 1, 1917. A few years later, the company expanded operations by adding gummed label papers to the line.

Sales increased so rapidly that it was necessary to move, and in 1920 offices and plant were moved to 2433 S. Damen Avenue where operations are still continued today, although considerably expanded in size.

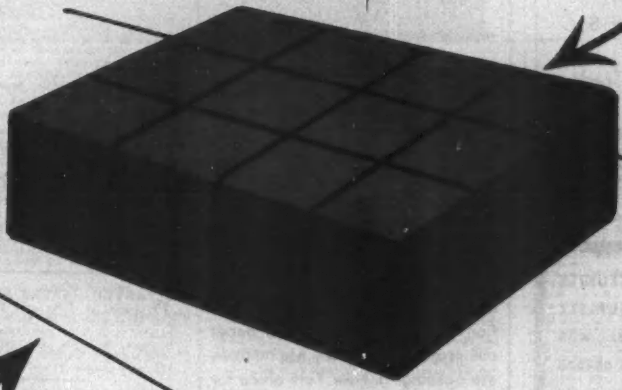
In 1944, Mr. McHenry arranged for the sale of Mid-States Gummed Paper Co. to the Minnesota Mining and Manufacturing Co. Mr. McHenry remained as head of the company and was active up to the day of his passing.

Lyddon & Co.

exporters of wood pulp
to all world markets

Parsons & Whittemore

paper exporters
wood pulp



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CLEARING HOUSE

HELP WANTED

Prominent paper export company requires clerk with knowledge paper—apply box—stating age, experience, salary required. Address Box 51-542 care Paper Trade Journal. O-26

AN UNUSUAL OPPORTUNITY FOR CHEMIST AND QUALITY CONTROL MAN familiar with Folding Boards. Excellent chance for advancement.

State complete details and experience in first letter. Address Box 51-547 care Paper Trade Journal. N-16

DESIGN MECHANICAL ENGINEER
For established mid-west converter of light weight board, paper and films. Duties—to design and supervise building of new converting equipment. Experience necessary—minimum of 5 to 10 years of designing paper converting machinery. Please give complete brochure of education, experience and salary requirements. Address Box 51-541 care Paper Trade Journal. N-2

HELP WANTED

MEN WANTED—POSITIONS OPEN

We can place—production managers, superintendents and foremen for paper converting departments, salary range $6,000-$12,000; assistant managers and assistant superintendents for board mills; night superintendent printing; cylinder machine foremen; accountants and office managers.

Chemists and chemical engineers, salary range $5,000-$10,000 year; finishing foremen fine papers, rag onion skin papers and light weight specialties; machine tenders and back tenders; master mechanics, maintenance foremen, mechanical and designing engineers; instrumentation engineer; electrical engineer; safety engineer for large mill, also qualified to work in the woods; sales managers and salesmen for gumming, die-cutting, printing and bag making plants, also for folding cartons Metropolitan area.

LIST YOUR CONFIDENTIAL APPLICATION WITH US to keep informed of attractive positions open in the pulp and paper mills.

CHARLES P. RAYMOND SERVICE, Inc.
294 Washington St., Boston 8, Mass.

SPECIALISTS IN PLACING PULP AND PAPER MILL EXECUTIVES O-26

Wanted: Power Plant Chief Engineer
Must be experienced operations and maintenance of boilers and steam turbines. Employment in small paper mill operating in the Southwest. To take charge of power plant generating about 4000 kilowatts.
Please state training, experience and starting salary expected in the first letter.
Address Box 51-545 care Paper Trade Journal N-2

PAPER MILL ENGINEERS
Engineering construction organization with extensive pulp and paper mill projects under way has immediate openings in New York office for paper mill design and layout Engineers. Please give complete engineering and biographical background in first letter. Write Box 51-509 care Paper Trade Journal. N-2

PERSONNEL SUPERVISOR wanted for Southern Pulp and Paper Mill. Over a thousand employees. Must have required academic background and experience in testing, hiring and general personnel and labor relations. Will also have supervision of insurance and safety. Excellent climatic location and opportunity. In replying state complete history and salary required. Reply box 51-533 care Paper Trade Journal. B-26

HELP WANTED

SALARIED POSITIONS $3,500 to $35,000. We offer the original personal employment service (established 41 years). Procedure of highest ethical standards is individualized to your personal requirements. Identity covered; present position protected. Ask for particulars. R. W. BIXBY, INC. —117 Dun Bldg., Buffalo, 2, N. Y. TF

PROJECT ENGINEER with intensive Paper Converting Experience must be aggressive and cost minded. Excellent opportunity for right man. Write full Details. Box #51-538 care Paper Trade Journal. B-26

WANTED—Master Mechanic or Assistant for modern 3-Machine Tissue Mill. Progressive management; expansion program now under way. Fine opportunity for young/middle aged man to advance. Substantial paper mill mechanical experience with electrical background desirable. Give complete resume of experience in letter to Box 51-442 care Paper Trade Journal. Replies held strictly confidential. TF

Wanted: Man with experience to carry out effective, intensive, continuous safety program for the Johnsonburg, Pennsylvania Mill (1300 employees) of the New York and Pennsylvania Co., Inc. Prefer person who has had experience as Safety Assistant in larger company with good safety record or as director of effective program in smaller company. O-26

WANTED — SALES ENGINEER — Experienced in Pulp and Paper Mills, for sales and service work in the South. Excellent opportunity with old established machinery manufacturer. In reply give resume of education, experience and current salary. Address Box 51-482 care Paper Trade Journal. N-9

SALES ENGINEER—Engineer with pulp mill experience wanted by well established machinery firm. Opportunity for advancement. Address Box 51-516 care Paper Trade Journal. TF

TOP NOTCH MAN WANTED for research and development work in the field of lacquer coated papers by leading company in its field. Address replies to Research Director, The Plastic Coating Corp., Holyoke, Mass. O-26

SUPERINTENDENT for Maintenance and Modernization; Machine Tender; Back Tenders; for Fine Paper Mill Eastern New York. Address Box 51-501 care Paper Trade Journal. O-26

WANTED — Machine Tenders and Back Tenders for corrugating medium and liner mill. Fourdrinier and cylinder machines. Located in Western Pennsylvania; good working conditions; pleasant surroundings and very good labor relations. Call collect—Tarentum 1470. TARENTUM PRODUCTS CORPORATION, Tarentum, Pa. TF

RATES FOR CLEARING HOUSE ADVERTISING

HELP WANTED—10c a word. Double rate for heavy face type. Minimum charge $3.50.

SITUATIONS WANTED—10c a word, double rate for heavy face type. Minimum charge $3.00. If repeated ½ rate will be charged for each consecutive repetition.

FOR SALE—10c a word. Double rate for heavy face type. Minimum charge $3.50.

WANTED—10c a word. Double rate for heavy face type. Minimum charge $3.50.

OPPORTUNITIES—10c a word. Double rate for heavy face type. Minimum charge $3.50.

Classified advertising space may also be purchased at $5.00 per single column inch. All classified advertisements are payable in advance. If box number is used—70 cents additional.

Address replies to advertisements appearing under Box Numbers in care of PAPER TRADE JOURNAL, 15 West 47th Street, New York 18, N. Y.

HELP WANTED

WORKING SUPERINTENDENT for small fast growing Eastern mill making lightweight specialties. Cylinder machine experience essential. State qualifications and salary expected. Address Box 51-47 care Paper Trade Journal. TF

EASTERN CONVERTER wants oil-ink Pressman acquainted paper napkin manufacture. Reply in confidence to Box 51-511 care Paper Trade Journal. N-2

WANTED—A Working Master Mechanic with paper mill experience, by a one machine Ohio Paper Board Mill. Give complete resume of experience and salary expected. All replies confidential. Our employees know of this advertisement. Address Box 51-522 care Paper Trade Journal. N-2

TOUR BOSS—Experienced cylinder machine tender for position as Tour Boss, Rotating shifts. Mill located in western Massachusetts. Address Box 51-543 care Paper Trade Journal. N-9

ONE MACHINE MIDWESTERN fine paper mill has opening for Superintendent of Receiving, Finishing and Shipping. References required. Address Box 51-555 care Paper Trade Journal. TF

HELP WANTED

PAPER SALESMAN WANTED for established Philadelphia Paper Jobber. Can use man looking for a better opportunity or one that wants to make an investment in a business. We carry items for industrial plants and stores. Address Box 51-544 care Paper Trade Journal. N-2

WANTED—Buyer for purchasing wax paper for leading milling firm located in the middle west. Must have background knowledge of paper. Prefer young man between 25 and 30 years of age. In replying, state complete history and salary required. Address Box 51-546 care Paper Trade Journal. O-26

SITUATIONS WANTED

PLANT ENGINEER—Facial, Toilet Tissue, Cellulose. Allied converting experience. Seasoned man who can develop systematic maximum production, design new machinery, redesign old equipment. Establish material handling techniques and supervise complete plant maintenance. Address Box 51-539 care Paper Trade Journal. O-26

SITUATIONS WANTED

PLANT MANAGER—Paper and Board and their conversion; wants challenging opportunity. Highly successful in organization; administration; labor relations and high level production. Presently employed. Address Box 51-463 care Paper Trade Journal. O-26

BEATER ENGINEER—A very high grade man with a wealth of experience seeks a difficult assignment. Many years with one of America's foremost mills. Expert on colors and knows paper making thoroughly. Address Box 51-525 care Paper Trade Journal. O-26

COLLEGE FORESTRY GRADUATE with 1½ years experience as quality control chemist desires employment in wood department of progressive paper company. Interested in company which can offer advancements as ability is proven. For additional information write Box 51-520 care Paper Trade Journal. O-26

PULP AND PAPER CHEMIST—28; single; graduate NYS College of Forestry; employed by research organization for paper product development. Desires position in technical department of pulp and paper mill or in production. North eastern location preferred. Address Box 51-549 care Paper Trade Journal. N-9

ROSS PAPER MACHINERY CO.
265 PASSAIC STREET
NEWARK 4, N. J.

CONVERTING PAPER MAKING EQUIPMENT — NEW AND USED STRAIGHT PAPER AND PULP MACHINERY

MACHINERY WANTED FOR OUTRIGHT PURCHASE
From a Single Item to A Complete Mill.

BEATERS
1—Ditto 750 lb. Iron Tub. Roll 44" face x 80" diameter.
1—Downingtown 1500 lb. Iron Tub. New roll 48" face x 48" diameter.

BELTING—NEW
27 feet 8" 13 ply Goodyear Rubber Belting.
100 feet 8" 4 ply Silver Duck Transmission belt.

CALENDER ROLLS
48 Chilled Iron Rolls—Assorted sizes.

CALENDER STACKS
1—3 roll—22".
1—3 roll—42". All rolls bored for steam.
1—Lodell 6 roll 124" Calender Stack, with doctors and drives.
1—Farrel Birmingham 110" Calender Stack with doctors. 2 rolls bored for steam.

CONVEYOR
1—16½ ft. long x 30" wide—with motor.

CYLINDER MOLDS
1—134" face x 80" diameter, with stainless steel shafts.

DAMPENER
1—Valley Micromist Unit for water finish on paper—120" deckle.

DRYERS
1—124" face x 48" diameter.
1—72" face x 48" diameter—with gear.
1—120" face x 10" diameter—Baby Dryer.
1—102" face x 48" diameter, with bearings.
3—110" face x 42" diameter with bearings and gears.
1—102" face x 42" diameter Creping Dryer.
1—42" face x 36" diameter, with frames, gears and bearings.
10—60" face x 48" diameter, with gears, bearings and steam joints.
21—120" face x 62" diameter.
1—110" face x 48" diameter.
3—102" face x 48" diameter.
1—104" face x 36" diameter.
3—110" face x 50" diameter, with gears and bearings.

EXTRACTOR ROLLS
1—Downingtown Extractor Roll 138" face x 24" diameter. Anti friction bearings.

FILTERS
1—Oliver Vacuum Filter, Cylinder 5' face x 5' 6" diameter. Iron and wet.

FLAT SCREENS
3—4 plate Sandy Hill Roller Shoe with scrapers.
6—Harmon 12 plate.
1—Sandy Hill 12 plate roller shoe.
3—Bagley & Sewall 8 plate, with scrapers and plates.
16—Sandy Hill 12 plate roller shoes.

HYDRAPULPER
1—Shartle Brothers 10' batch Hydrapulper with hydraulic dump valve and skip hoist. Complete, including drive—less motor. New 1947.

HYDRAULIC PRESS
1—Thorpe 250 ton. Steam platens. 40"x40" with pump.

JORDANS
1—#6 Niagel, for motor drive.
1—Jones Majestic with base and couplings—#3 Appleton with base and couplings.
1—Jones Majestic, Stainless Steel Fillings.
3—E. D. Jones Pony. 8/10" stainless steel fillings—hooded plugs.
1—Smith & Winchester Stainless with granite fillings.

MOTORS
1—Allis Chalmers 30 h.p. 440 v. 900 r.p.m.
3—Westinghouse 100 h.p. slip ring, 440 v. 3 ph., 60 cyc. 900 r.p.m.
1—Crocker Wheeler 100 h.p. slip ring, 440 v., 3 ph. 60 cyc. 710 r.p.m.
1—General Electric 100 h.p. 440 v., 3 ph., 60 cyc., 575 r.p.m.
1—Western Electric 100 h.p. 440 v., 3 ph., 60 cyc., 885 r.p.m.
25 others 440 v. motors from 2 h.p. to 15 h.p.

PULP EQUIPMENT
1—Mills & Merrill #17 Pulpwood chipper.
1—Bird ball bearing Pulp Screen. Practically new. Used 6 months.
4—APHEW Ball Bearing Pulp Screens—30 ton capacity.
1—D. J. Murray 10' x 22' Barking Drum.
1—Carthage 10 knife Chipper 18" spout with belt drive.

PULPERS
3—#2 Lancaya.

PUMPS
44—Centrifugal Pumps, open & closed impellers. Direct connected or Belt Driven. Extended base for motor. Assorted capacities and heads. Most used less than one year. Also new Goulds Pumps.

REDUCERS
1—Link Belt 40 h.p. Ratio 2.3-1, 380 r.p.m.-227 r.p.m.

REFINER
2—Claflin 21"—anti friction bearings—for belt drive.

ROLLS—PRESS, COUCH, etc.
32—Press rolls, brass and rubber covered.
14—Couch rolls, brass and rubber covered.
250—Brass and steel carrying rolls.

ROTARY SCREENS
3—#2A Bird Rotaries. Copper vats.

SCREW PRESSES
3—Valley Voith Screw Press Size 2.
1—Valley Voith Screw Press—enclosed drive.

SHEETERS
1—Hamblet 124" Duplex Sheeter with maxim layboys—4 roll backstand—motor and starter.
1—Moore & White Simplex 114" Sheeter with slitter—counter, Maxim layboy overlapping delivery, 6 roll backstand, motor and starter.
1—42" Kidder Boat Sheeter.
1—64" Duplex Dilion with 10 roll Back Stand.
1—Moore & White 91" with Erie Layboy and 10 roll backstand, with motor.

SHREDDERS
1—Asmtrom 27" Hammermill, anti-friction bearings.
1—Jeffrey 28½" Knives—7 knife rotor—4 knife bed plate. Ball bearing.

SLITTERS AND WINDERS
1—Beloit 120" Paper Machine Slitter and Rewinder—42" rewind.
1—Hudson Sharp 25W—60" Wax roll slitter and rewinder.
1—Cameron 42" Model 6—24" rewind.
1—Miami 42" Slitter.
1—Cameron 42"—Model 2B.

STEAM TURBINES
1—De Laval 225 h.p. initial pressure 140 p.s.i. Exhaust pressure 30 p.s.i. Complete with gear reducer.
1—De Laval Variable speed—275 h.p. at 135 pounds and 30 p.s.i. exhaust. Complete with gear reducer.

STOCK PUMPS
1—Shartle 10 x 20 Single Plunger Pump.
1—Beloit 8x10 Triplex.

SUCTION COUCH ROLLS
2—Millspaugh 30" diameter x 234" drilled face with enclosed drive, water cooled bearings, 12" suction hose and 1 spare shell.
1—Beloit 23" diameter x 104½" drilled face—anti friction bearings.

SUCTION PRESS ROLLS
1—Sandusky 57" drilled face x 14" diameter.

SUPERCALENDERS
1—Norwood 74" 9 roll with cowind and rewind. Complete with drive and 2 spare rolls.
1—Norwood 94" 10 roll with cowind and rewind. Complete with drive and 2 spare rolls.
1—Norwood 98" 9 roll with cowind and rewind. Complete with drive and 2 spare rolls.

THICKENER
1—Woods Thickener with anti friction bearing. Cylinder 48" diameter x 120" face.

TOILET TISSUE PERFORATOR
1—Paper Converting Machine Co. Model 141 automatic 81" Perforator, slitter and Winder—with three motors—ball bearing.

VACUUM PUMPS
1—Nash ½ H-5 Vacuum Pumps
1—Nash 2A
1—Nash 2B

WAXING MACHINES
1—24" Potdevin complete from 1st off to single roll rewind motherroll.
1—24" Special—complete from 2 roll 1st off to single roll rewind.

WET MACHINES
1—Appleton 74" face x 36" diameter cylinder.
1—Appleton 74" face x 39" diameter cylinder.

WRAPPING MACHINE
1—Morrow Stevens type 1C. Package thickness ¼" to 5". Used 30 days.

WHY LIST YOUR EQUIPMENT? — WE WILL BUY IT.

FOR SALE

CAMERON SLITTERS

1—52" Type 8-S.
1—42" Type 6.
1—52" and 1—42" Type 40-2A.
1—42" and 1—62" Type 40-1-AF.
1—82" Type 10.
1—72" Type 5.
1—82" Type 10.

OTHER SLITTERS

1—62" Type AA Langston Shear Cut.
1—36" Special Cellophane and Paper Slitter.
1—60" Hammersly Score Cut.
1—30" and 1—40" Langston Type A Shear Cut S. & R.
1—42" Langston Center Wind Duplex Shear Cut Slitter and Rewinder.

POWER PAPER CUTTERS

8—Seybold, 44", 54" and 63" 20th Century; 34", 44", 48" and 54" Holyoke; Dayton, 50".
5—Oswegos, 32", 38", 44", 50" and 57".
6—Sheridans, 34", 36", 40", 50", 54" and 56".
1—Dexter, 50".
5—Acme, 32", 34", 36", 48" and 50".
1—Smith and Winchester Undercut 63".

MISCELLANEOUS MACHINES

1—6½" and 1—20" four unit Champlain Rotogravure Presses.
1—72" Hudson-Sharp 23W Winder for Waxed and Household paper rolls.
1—36" Beck Rotary Sheet Cutter with Jogger Table Delivery.
3—Schultz Automatic Roll Machines. Take paper 12" to 34" wide. Roll lengths 12" to 150".
1—86" Creping machine. Has three 5' diameter dryers, complete unit.
1—Sheridan Die Press, Model 8B Platen 33" x 46".
1—New 24"—2 color, Roll to Roll Aniline Press.
1—40" Waldron Intaglio press for printing board in sheets.
1—40" Mayer Equaliser Waxing Machine. Type 40-EV. Two Coating Heads and three 16" diameter Cooling Drums.
1—62" Hammersly Squeese Roll Waxing Machine.
2—Potdevin Waxing Machines, 62" wide.
2—Brand new 81" Dietz, very latest type, friction rewind combination toilet and towel roll converters. Automatic counters and stop motions.
1—48" Hamblet Rotary Sheet Cutter with Backstands.
1—64" Dillon Duplex Rotary Sheet Cutter.
1—94" Moore & White Duplex Rotary Sheet Cutter.
1—116" Model 29 Hamblet Duplex Rotary Sheet Cutter, slitting attachment, Erie automatic layboy and twelve roll backstands.
1—64" and 1—74" Hamblet Single Rotary Sheet Cutters, slitting attachments, 8 roll backstands, automatic layboys.
1—55" nine roll Holyoke Super Calender stack with drive and AC motor equipment.
2—Asphalt Laminating machines, one 70" and one 68".
1—Roto Bag Machine with electric eye, for making cellophane, polyethylene pliofilm, bags in wide range of sizes.
1—84" Carthage wood chipper, 10 knives, belt drive.
2—36" x 70" Wet Machines.
2—#2 Lanneye Pulpers.
2—3000 lb. Niagara Iron Tub Beaters.
10—Sandy Hill 12 plate Packer Screens.
2—Horizontal Rotary Digesters, 8'-6" I.D. x 9'-6½", 450 cu. ft. capacity.
1—Ever-Ready Gummed Tape Printer.
1—Hudson-Sharp 4-A Sheeter, handles two 17" webs from Aniline Press.
1—Logeman, Electric Baler, baler 24" x 40" x 40"
1—34" Waldron Gumed Paper Breaker.
1—40" Special roll to roll coater or saturator.
1—48" Waldron, one unit roll to roll coater.
1—42" Waldron, 2 Roll, Roller Coater. Puts 2 coats on both sides of web at one time or any combination. Applies any material to paper, cellophane, plastics, etc.
4—Special automatic spiral tube machines for cores or paper straws ⅛" to ⅞" I.D.

GIBBS-BROWER CO. INC.

Please address reply to Room 902
21 East 40th Street, New York 16, N.Y.
Telephone Lexington 2-5759

O-26

SITUATIONS WANTED

SALESMAN—with fifty years experience, wants to represent manufacturers of: Fine and Book Papers, Card Boards and Envelopes. As a Mill Agent, on lines which are stocked for direct shipment to Buffalo, N. Y. Address Box 51-554 care Paper Trade Journal. N-2

FOR SALE

FOR SALE

5 Buffalo Stainless Steel Pumps #6 CM.
2 Bird 3A Rotary Screens
1 64" Wet Lap Machine
6 Vibrating Screens
1 Flotation Machine
2 Open Steel Tanks—11' D. x 16' High
16 Glass Lined Tanks
10 3" Redwood and Cypress Tanks
1 5' x 5' Platform Scale
6 Taylor instruments with mercury sticks
1 120 H.P. motor—3/60/440—620 RPM
1 100 H.P. motor—3/60/440—900 RPM
1 Diesel Engine, 300 H.P.—Superior
1 Emerson #2 Jordan

IRWIN COHEN
1351 Somerset Road
West Englewood, N. J.
Tecaneck 6-5325

O-26

FOR SALE

20 New Anti-friction Bearing Felt Stretches. Brass screws 1¾" dia. complete with hand wheels and ratchet 12 Sets Spring Roll Brackets with 1-7/16" and 1-15/16" bearings.

Osborne Paper Mill Equipment Corp.
FULTON, N. Y. New Tel. #2-4254
O-26

FOR SALE

Two or Three Paper Machines, Cylinder or Fourdrinier, Trim 44", 48" diameter dryers chromium plated. Will rebuild to make any kind of paper and capacity to meet your needs.
Box 51-505 c/o Paper Trade Journal
TF

FOR SALE

1—136" Fourdrinier Paper Machine with dryers 42" dia., 132" face. Can furnish 13 or 33 dryers to suit your needs. Will rebuild machine to make grades you desire.

Osborne Paper Mill Equipment Corp.
FULTON, N. Y. New Tel. #2-4254
TF

FOR SALE

Used dryers now operating on 40 Lbs. steam pressure.

34 dryers—48" x 124"
32 dryers—48" x 118"

Box #51-523 care Paper Trade Journal.
N-30

FOR SALE—One type I, form K, 50 HP General Electric motor, 440 V, 3 ph, 60 cycle, 950 rpm. Also, one 50" Langston rewinder. Can make rolls up to diameter 40". Address Box 51-504 care Paper Trade Journal. O-26

FOR SALE
HYDRAPULPER

1—Shartle Brothers 10' Saint Hydrapulper with hydraulic dump valve and skip hoist. Complete, including drive—less motor. New 1947.

ROSS PAPER MACHINERY COMPANY
285 Passaic Street Newark, 4, N. J.
Tel. HUmboldt 2-2177
O-26

FOR SALE
SUCTION COUCH ROLLS

2—Millspaugh 30" diameter x 294" drilled face with enclosed drive, water cooled bearings, 12" suction boxes and 1 spare shell.
1—Beloit 29" diameter x 104½" drilled face—anti friction bearing.

ROSS PAPER MACHINERY COMPANY
285 Passaic Street Newark, 4, N. J.
Tel. HUmboldt 2-2177
O-26

FOR SALE
AT FRACTION OF VALUE

1—55" Holyoke, 9 roll, super-calender stack, complete with excellent drive and 75 H.P. motor equipment. Complete and in excellent condition. Address Box 51-551 care Paper Trade Journal. O-26

FOR SALE

1—Champlain 6½" wide, four unit rotogravure press. Adjustable cut-off up to 11". Also rewind. Speed 300' per min. Accurate register. A.C. motor equipment. Perfect for label work. Address Box 51-552 care Paper Trade Journal. O-26

FOR SALE
AT HALF REPRODUCTION COST

1—42"—"Last Word"—Waldron, two roll, roller coater. Any combination, one or both sides of web. Chilled or (Kidde), oil heated coating. Applies any material to paper, cellophane, plastics, etc. at 600' per minute. A.C. motor equipment. Address Box 51-553 care Paper Trade Journal. O-26

FOR SALE—64" Seybold Paper Cutter; 36" and 62" Cameron Slitter/Rewinder; 6" Brightwood; Int'nl. Folding Box Gluer; 30" and 44" Hartford Platen Die Cutter; 72" S & S Rotary Slitter/Creaser; Knowlton Spiral Tube Winder & Recutter like new; Complete Set-up Box Machines. Write for listings and prices. Address Box 51-467 care Paper Trade Journal. TF

PAPER COATING MACHINERY MANUFACTURERS—Waxing, Oiling, Carbon Laboratory Coating and Treating and Flat Ream Measuring and Converting Machines. New improvement. THE MAYER MACHINE COMPANY, INC., 1313 Buffalo Road, Rochester, 11, N. Y. TF

FOR SALE—52" Cameron type 8 Model 5 Slitter; 48"Kidder Model CH shear cut slitter; 76" Cameron Rewinder; 75" Moore & White Upright 2 drum Reel; 42" Moore & White Sheeter; 100" Dillon Sheeter. Thomas W. Hall Company, Inc., 120 West 42nd St., New York, 18. TF

ONE AW-2 HUDSON SHARP WAXER. Takes 30" wide web. Complete with wax cooling unit, rewinder and slitter attachment and parent roll stand. Extra rubber roll. New condition. Address Box 51-529 care Paper Trade Journal. N-9

FOR SALE—One 200 HP G. E. Motor—Type I, Form K, Frame 17, Ser. 4025617, 3/60/440/600 RPM with Std. shaft extension, 2 extra dippings for moisture proofing. Never used since rebuilt. Sangamon Paper Mills Inc., 137 W. Pershing Rd., Chicago, Ill. O-26

FOR SALE—22 x 24 Seybold 4 rod Embosser; 50" model 5 Camachine; 36" Hamblet Sheeter with Layboy. Principals only. Address Box 51-550 care Paper Trade Journal. N-2

WANTED

WANTED

Tablet Paper—16 lb.
34" Rolls
Any Quantity
Address Box 51-536 care Paper Trade Journal.
N-2

WANTED—15 Dryers 70-74" face, 36" diameter. Address Box 51-519 care Paper Trade Journal. N-2

WANTED—10", 13" and 17" Napkin Printers or Machines. Full details to Box 51-512 care Paper Trade Journal. N-2

WANTED

WANTED

1—Double-pass 60 to 80' long coated paper festooning equipment, 60" wide with a turn around at end. Box 51-540 care Paper Trade Journal. O-26

WANTED—To Expedite Production—W & P Shredders, Slitters, Hydraulic Presses, Evaporators, Generators and Boilers, Sheridan Presses, Dryers. Will consider set up plant now operating or shut down. When offering, give full particulars. P. O. Box 1351, Church Street Station, New York 8. TF

WANTED

WANTED TO BUY OR LEASE—Fourdrinier or Cylinder mill with one or two machines. Confidential. Address Box 51-526 care Paper Trade Journal. O-26

WANTED—Four Fourdrinier Machines. 3 wide, 1 to trim 100". Will consider complete machine or offer components. Address Box 51-535 care Paper Trade Journal. N-9

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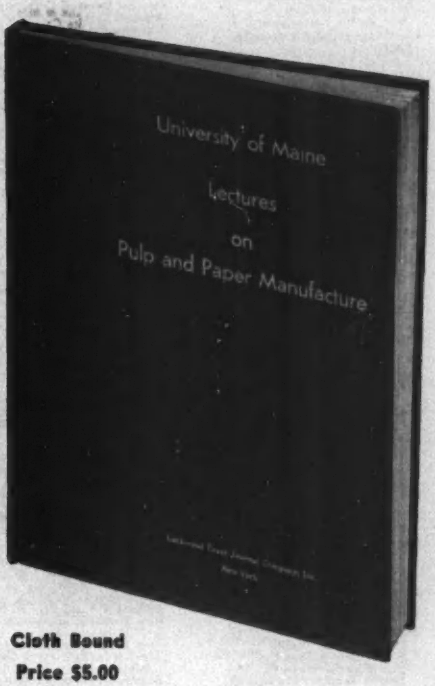

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Cambridge Instrument Co.
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W. & L. E. Gurley
B. F. Perkins & Son
Photovolt Corp.
Taylor Instrument Cos.
Testing Machines, Inc.
Thwing-Albert Instrument Co.
Williams Apparatus Co.

JOINTS
The Bagley & Sewall Company
Beloit Iron Works
Johnson Corp.
Lovejoy Flexible Coupling Co.
Rice Barton Corporation
Shartle Bros. Mch. Co.

JORDAN FILLINGS
Appleton Machine Co.
Bahr Brothers Mfg. Co.
E. D. Jones & Sons Co.
Shartle Bros. Mch. Co.
Smith & Winchester Mfg. Co.
Valley Iron Works Co.

KNIVES
Black Clawson Company
Dilts Machine Works, Inc.
Hamblet Machine Co.
Heppenstall Company
E. D. Jones & Sons Co.
The Moore & White Co.
Simonds Saw & Steel Co.
Taylor Stiles & Co.
Valley Iron Works Co.

KNOTTERS
Fibre Making Processes, Inc.

KRAFT WRAPPING PAPERS
Canadian Newsprint Supply Co.

LABORATORY COEFFICIATOR
Thwing-Albert Instrument Co.

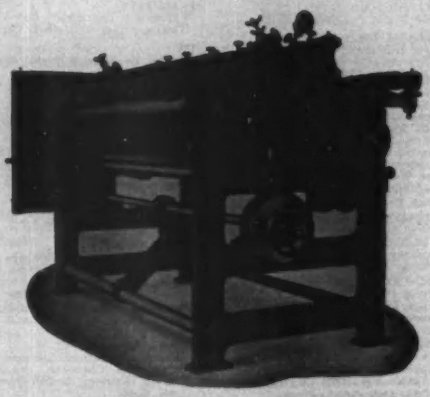
LABORATORY EQUIPMENT
Appleton Machine Co.
Bauer Brothers Co.
Bird Machine Company
Dilts Machine Works
W. & L. E. Gurley
Egan, Frank W., & Co.
E. D. Jones & Sons Co.
Taylor Instrument Companies
Testing Machines, Inc.
Valley Iron Works Co.
John Waldron Corp.
Williams Apparatus Co., Inc.

LAMINATING MACHINES
The Bagley & Sewall Company
Dilts Machine Works
Egan, Frank W., & Co.
Rice Barton Corporation
John Waldron Corp.

LAY BOYS
Dilts Machine Works
Gibbs-Brower Company, Inc.
Hamblet Machine Co.
Moore & White Co.

MODEL 28

ROLLER BEARING CUTTER

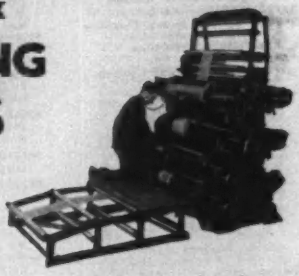


HAMBLET MACHINE CO.
LAWRENCE, MASS.

MAKERS OF
SINGLE, DUPLEX AND DIAGONAL PAPER CUTTERS
CUTTER KNIVES, PATENT TOP SLITTERS

POTDEVIN

Aniline Ink PRINTING PRESSES



4-color multi-length web press. Note long paper run between 1st and 2nd colors and visible inspection before rewinding.

GD. BOX PRESS

MULTI-WALL TUBER

There are POTDEVIN presses for every need from 15" to 40" web widths . . . one to six-color work . . . for direct connection to paper bag and other paper converting machinery or roll-to-roll.

No matter what the material to be printed, light board, paper, cellophane, glassine, etc., you can depend on POTDEVIN presses to do it better.

Consult our engineers on any problem. No obligation. Literature on request.

POTDEVIN MACHINE CO.
1223 38th St., Brooklyn 18, N. Y.

Designers and manufacturers since 1891 of equipment for Bag Making, Printing, Coating, Gluing and Labeling

LIFT TRUCKS
Clark Equipment Company, Industrial Truck Division

LINTER COTTON
Alpha Cellulose Corp.
Railway Supply & Mfg. Co.

LINTER PULP
Alpha Cellulose Corp.

LUBRICANTS
Gulf Refining Co.
Sinclair Refining Co.
Socony-Vacuum Oil Co.
Sun Oil Company
The Texas Company
Tide Water Associated Oil Co.

MAGAZINE REELS
Dilts Machine Works (Kohler Systems)

MATERIALS HANDLING
Clark Equipment Company
Industrial Truck Division
Cleveland Crane & Engrg. Co.
Dilts Machine Works
Jeffrey Mfg. Co.
Shartle Bros. Mch. Co.
Stephens-Adamson Mfg. Co.
The Wellman Engrg. Co.

METAL TIRES
Strub Process Steel Co.

MICROMETERS & CALIPERS
Farrel-Birmingham Co.
Lobdell Co.
Stephens-Adamson Mfg. Co.
Testing Machines, Inc.

MICRO-CRYSTALLINE WAXES
Bareco Oil Co.
Bunge Pulp & Paper Co.
Moore & Munger
Sun Oil Company

MOISTURE CONTENT CONTROL
Cambridge Instrument Co.
Stickle Steam Specialties Co.
Williams Apparatus Co., Inc.

MOTORS AND GENERATORS
Allis-Chalmers Mfg. Co.
Fairbanks, Morse & Co.
General Electric Company
Reliance Electric & Engrg. Co.

NEWSPRINT
Bunge Pulp & Paper Co.
Canadian Newsprint Supply Co.

NICKEL AND NICKEL ALLOYS
The International Nickel Co.

NOZZLES
Spray Engrg. Co.

PACKING BOXES
Clark Equipment Company, Industrial Truck Division
Johnson Corporation
The Moore & White Co.
Shartle Brothers Machine Co.

PALLET TRUCKS
Clark Equipment Company, Industrial Truck Division

PAPER MACHINE DRIVES
The Bagley & Sewall Company
Manchester Machine Co.
Rice Barton Corporation

PAPER MACHINES
The Bagley & Sewall Company
Beloit Iron Works
Bagley & Sewall Co.
Black Clawson Company
Downingtown Mfg. Co.
Gibbs-Brower Company, Inc.
Thomas W. Hall Co.
Lukenweld
Moore & White Co.
Pusey & Jones Corp.
Rice Barton Corporation
J. J. Ross Company
Ross Paper Machy. Corp.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Smith & Winchester Mfg. Co.

PAPER MACHINE SLICES
Black Clawson Company
E. D. Jones & Sons Co.
The Moore & White Co.
Rice Barton Corporation
The Sandy Hill Iron & Brass Works
Valley Iron Works Co.

PAPER TUBE MACHINERY
Dietz Machine Works
Gibbs-Brower Company, Inc.
Thomas W. Hall Co.
Hudson Sharp Machine Co.
Jagenberg-Werke Akt. Ges.
Langston Co., Samuel M.

PARAFFINE WAXES
Moore & Munger
Sun Oil Company

PARAFFIN WAX EMULSIONS
Nopco Chemical Co.

PASTING MACHINES
Beloit Iron Works
Black Clawson Company
Dilts Machine Wks.
Frank W. Egan & Co.
Gibbs-Brower Company, Inc.
Murray, D. J., Mfg. Co.
Moore & White Co.
Potdevin Machine Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Waldron Corp., John

PEBBLE MILLS
F. L. Smidth & Co.

PERFORATED METAL
Allis-Chalmers Mfg. Co.

pH METERS
Cambridge Instrument Co.
Thwing-Albert Instrument Co.

PIPE
Armco Drainage & Metal Products, Inc.
Babcock & Wilcox Co.
Crane Company
Grinnell Company
Michigan Steel Casting Co.
National Tube Co.
Walworth Company

PIPE FITTINGS
Armco Drainage & Metal Products, Inc.
Crane Company
Grinnell Company
Michigan Steel Casting Co.
Walworth Co.

PITCH CONTROL
American Cyanamid Company, Industrial Chemicals Division
General Dyestuff Corp.
Monsanto Chemical Company
National Aluminate Corp.
Nopco Chemical Co.
Rohm & Haas Co.

PLASTICIZERS
American Cyanamid Company, Industrial Chemicals Division
Aktivin Division, Heyden Chemical Corp.
B. F. Goodrich Chemical Co.
Naugatuck Chemical Division of U. S. Rubber Co.
Nopco Chemical Co.

PLATERS
Gibbs-Brower Company, Inc.
Perkins & Son, Inc., B. F.

PLATES
Armco Steel Corp.
Babcock & Wilcox Co.
J. J. Ross Engrg. Corp.
Lukenweld Division
Lukens Steel Company
Timken Roller Bearing Co.

PLUGS
The Appleton Machine Co.
Black Clawson Company
E. D. Jones & Sons Co.
Shartle Brothers Machine Co.

POPE TYPE REELS
Egan, Frank W., & Co.
Manchester Machine Co.
Rice Barton Corporation

PRECISION SAMPLE CUTTER
Testing Machines, Inc.
Thwing-Albert Instrument Co.

PRESERVATIVES
E. I. du Pont de Nemours & Co.
General Dyestuff Corp.

PRESS ROLLS
Beloit Iron Works
Rice Barton Corporation

PRESSURE FILTERS
Holyoke Machine Co.

PRESSURE VESSELS
Chicago Bridge & Iron Co.
Combustion Engineering-Superheater, Inc.

PRESSES
Black Clawson Company
Dietz Machine Works
Farrel-Birmingham Co.
Gibbs-Brower Company, Inc.
Thomas W. Hall Co.
Hudson-Sharp Mch. Co.
The Moore & White Co.
Potdevin Machine Co.
Rice Barton Corporation
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Valley Iron Works Co.
Waldron Corp., John
H. G. Weber & Co., Inc.
Williams Apparatus Co.

PULLEY
Lovejoy Flexible Coupling Co.
Rice Barton Corporation

PULP CLASSIFIER
The Bauer Bros. Co.
Thwing-Albert Instrument Co.

PULP CLEANERS
Nichols Engrg. & Research Corp.

PULP STOCK VALVES
Crane Company
Record Fdy. & Mach. Co.
Shartle Brothers Machine Co.

PULPERS
Apmew, Inc.
Bauer Brothers Co.
Dilts Machine Works
E. D. Jones & Sons Co.
Morden Machines Co.
Shartle Brothers Machine Co.

PULPS
Alpha Cellulose Corp.
Brown Company
Bunge Pulp & Paper Co.
Gottesman & Co., Inc.
Lyddon & Co. (America), Inc.
Parsons & Whittemore, Inc.
Perkins-Goodwin Co.
Price & Pierce, Ltd.
Pulp and Paper Trading Co.
Restigouche Co., Ltd.

PULPSTONES
Norton Company

PULP TESTERS
Paper and Pulp Testing Laboratories
Williams Apparatus Co., Inc.

PULVERIZING MILLS
Combustion Engineering-Superheater, Inc.
Jeffrey Mfg. Co.
F. L. Smith & Co.

PUMPS
Allis-Chalmers Mfg. Co.
Apmew, Inc.
The Bagley & Sewall Company
Beloit Iron Works
Black Clawson Company
Buffalo Pumps, Inc.
Byron Jackson Co.
DeLaval Steam Turbine Co.
Downingtown Mfg. Co.
Fairbanks, Morse & Co.
Gibbs-Brower Company, Inc.
Johnson Corp.
Moore & White Co.
Nash Engineering Co.
Roots Connersville Blower Corp.
J. J. Ross Company
Ross Paper Machy. Corp.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Smith & Winchester Mfg. Co.

RADIANT BURNERS
Red-Ray Mfg. Co., Inc.

RAG COOKING PROCESSES
The Kinsley Chemical Company
General Dyestuff Corp.
Rohm & Haas Co.

RAG CUTTERS
Gibbs-Brower Company, Inc.
B. F. Perkins & Son, Inc.
Taylor-Stiles & Co.

RECOVERY SYSTEMS
Babcock & Wilcox Co.
Chicago Bridge & Iron Co.
Combustion Engineering-Superheater, Inc.
Moore & White Co.
D. J. Murray Mfg. Co.
Pusey & Jones Corp.
Ross Engineering Corp., J. O.
Valley Iron Works Co.

REELS
The Appleton Machine Co.
The Bagley & Sewall Company
Beloit Iron Works
Black Clawson Company
Dilts Machine Works (Kohler Systems)
Egan, Frank W., & Co.
Downingtown Mfg. Co.
Hudson-Sharp Mch. Co.
Moore & White Co.
Rice Barton Corporation
Rodney Hunt Machine Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
The Smith & Winchester Mfg. Co.
Waldron, John, Corp.

REFINERS
Appleton Machine Co.
Bahr Brothers Mfg. Co.
Bauer Brothers Co.
Dilts Machine Works
Gibbs-Brower Company, Inc.
E. D. Jones & Sons Co.
Mordon Machines Co.
Murray, D. J., Mfg. Co.
Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Sprout Waldron & Co., Inc.
Sutherland Refiner Corp.
Valley Iron Works

REGULATORS
APMEW, Inc.
Allis-Chalmers Mfg. Co.
Bird Machine Company
General Electric Co.
Johnson Corp.
Shartle Brothers Machine Co.
Stickle Steam Specialties Co.
Taylor Instrument Companies

RESINS
American Cyanamid Company, Plastics & Resins Division
The Dow Chemical Company
B. F. Goodrich Chemical Co.
The Goodyear Tire & Rubber Company
Hercules Powder Co.
Monsanto Chemical Company
Naugatuck Chemical Division of U. S. Rubber Co.
Nopco Chemical Co.
Plaskon Division, Libbey-Owens-Ford Glass Co.
Reichhold Chemicals, Inc.
Rohm & Haas Co., Resinous Products Div.

ROLLS
Appleton Machine Co.
The Bagley & Sewall Company
Beloit Iron Works
Black Clawson Company
Dilts Machine Works
Downingtown Mfg. Co.
Frank W. Egan & Co.
Farrel-Birmingham Co.
Gibbs-Brower Company, Inc.
Holyoke Machine Co.
Lobdell United Co.
Edward J. McBride Co., Inc.
The Moore & White Co.
D. J. Murray Mfg. Co.
Perkins, B. F., & Sons Co.
Pusey & Jones Corp.
J. J. Ross Company
Ross Paper Machy. Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Smith & Winchester Mfg. Co.
U. S. Rubber Co.
Valley Iron Works Co.
Waldron Corp., John
Wheeler Roll Co.

ROLL COVERS
The Goodyear Tire & Rubber Company

ROLL HANDLING EQUIPMENT
Dilts Machine Works (Kohler Systems)

ROLL STANDS
Cameron Machine Co.
Dilts Machine Works (Kohler Systems)
Frank W. Egan & Co.
Moore & White Co.
Potdevin Machine Co.
The Sandy Hill Iron & Brass Works
John Waldron Corp.
H. G. Weber & Co., Inc.

ROPE CARRIERS
Black Clawson Co.
The Moore & White Co.
Rice Barton Corporation
The Sandy Hill Iron & Brass Works

ROTARY KILNS
F. L. Smidth & Co.

ROTARY STEAM JOINTS
Johnson Corp.
The Moore & White Co.
Rice Barton Corporation
Shartle Bros. Mch. Co.

RUBBER PRODUCTS
The Goodyear Tire & Rubber Company

SATURANTS
B. F. Goodrich Chemical Co.

SATURATING MACHINES
Dilts Machine Works
Frank W. Egan & Co.
Gibbs-Brower Company, Inc.
Moore & White Co.
Potdevin Machine Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Waldron Corp., John
Weber, Herman G.

SAVEALLS
Bird Machine Company
Chicago Bridge & Iron Co.

SAWS
Simonds Saw & Steel Co.

SCALES
Fairbanks, Morse & Co.
Merrick Scale Mfg. Co.
Testing Machines, Inc.

SCREEN PLATES
Bird Machine Company
Fitchburg Screen Plate Co.
Magnus Metal Corp.
Morey Paper Mill Supply Co.
Testing Machines, Inc.
Union Screen Plate Co.

SCREENS
Allis-Chalmers Mfg. Co.
Appleton Wire Works
Appleton Machine Company
The Bagley & Sewall Company
Bird Machine Company
Carthage Machine Co.
Dilts Machine Works, Inc.
Downingtown Mfg. Co.
Fibre Making Processes, Inc.

Gibbs-Brower Company, Inc.
E. D. Jones & Sons Co.
Moore & White Co.
D. J. Murray Mfg. Co.
J. J. Ross Company
Ross Paper Machy. Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Stephens-Adamson Mfg. Co.
Valley Iron Works Co.

SHEET MACHINES
Gibbs-Brower Company, Inc.
Thomas W. Hall Co.
Valley Iron Works Co.
Williams Apparatus Co., Inc.

SHEETERS
Jagenberg-Werke Akt. Ges.

SHOWER PIPES
Bird Machine Company
Downingtown Mfg. Co.
Moore & White Co.
Sandusky Fdy. & Mch. Co.
Shartle Brothers Machine Co.
Smith & Winchester Mfg. Co.

SHREDDERS
Bauer Brothers Co.
Carthage Machine Co.
Gibbs-Brower Company, Inc.
Jeffrey Mfg. Co.

SILOS, STORAGE
The Marietta Concrete Corp.

SIZE PRESSES
Manchester Machine Co.
Rice Barton Corporation

SIZING
American Cyanamid Company, Industrial Chemicals Division
The Dow Chemical Company
du Pont, E. I., de Nemours & Co.
Glidden Company
Hercules Powder Co.
The Hubinger Co.
Monsanto Chemical Company
National Aluminate Corp.
Nopco Chemical Co.
Stein-Hall Co., Inc.
Wyandotte Chemicals Corp., Michigan Alkali Div.

SIZING TESTER
W. & L. E. Gurley
Testing Machines, Inc.
Thwing-Albert Instrument Co.
Williams Apparatus Co., Inc.

SLIME CONTROL
The Dow Chemical Company
E. I. du Pont de Nemours & Co.
General Dyestuff Corp.
Monsanto Chemical Co.
National Aluminate Corp.
Rohm & Haas Co.
Vanderbilt Co., R. T.
Wyandotte Chemicals Corp., Michigan Alkali Div.

SLITTERS
The Bagley & Sewall Company
Black Clawson Company
Cameron Machine Co.
Carthage Machine Co.
Clark-Aiken Co.
Dietz Machine Works
Dilts Machine Works
Downingtown Mfg. Co.
Frank W. Egan & Co.
Gibbs-Brower Company, Inc.
Graphic Arts International Corp.
Thomas W. Hall Co., Inc.
Hamblet Machine Co.
Hudson-Sharp Mch. Co.
Jagenberg-Werke Akt. Ges.
Langston Co., Samuel M.
Moore & White Co.
D. J. Murray Mfg. Co.
Potdevin Machine Co.
Rice Barton Corporation
J. J. Ross Company
Ross Paper Machy. Co.
The Sandy Hill Iron & Brass Works
Smith & Winchester Mfg. Co.
Valley Iron Works Co.
Waldron Corp., John

SMOKE STACKS
Chicago Bridge & Iron Co.

SOFTNESS-STIFFNESS TESTER
W. & L. E. Gurley
Testing Machines, Inc.
Thwing-Albert Instrument Co.

SOLUBLE OILS
American Cyanamid Company, Industrial Chemicals Division
General Dyestuffs Corp.
Nopco Chemical Co.

SPECIAL MACHINERY
Dilts Machine Works
Egan, Frank W., & Co.
Rice Barton Corporation
The Sandy Hill Iron & Brass Works
John Waldron Corp.

SPLICING TISSUE
Bunge Pulp & Paper Co.
Williams-Gray Co.

STAINLESS STEEL
Armco Steel Corp.
Michigan Steel Casting Co.
U. S. Steel Corp.

STARCH
A. M. Meincke & Son, Inc.
Clinton Foods, Inc.
The Hubinger Co.
National Starch Products Inc.
Stein-Hall Co., Inc.

STEAM JOINTS
The Moore & White Co.
Rice Barton Corporation
Shartle Bros. Mch. Co.

STEAM SPECIALTIES
Babcock & Wilcox Co.
Combustion Engrg. Co., Inc.
Johnson Corp.
Stickle Steam Specialties Co.

STEEL
Armco Steel Corp.
Carnegie Illinois Steel Co.
Lukens Steel Company
D. J. Murray Mfg. Co.
The Sandy Hill Iron & Brass Works
U. S. Steel Corp.

STEEL, CLAD
Babcock & Wilcox Co.
Lukens Steel Company

STEEL TANKS
Chicago Bridge & Iron Co.
The Sandy Hill Iron & Brass Works

STRETCH TESTER
Thwing-Albert Instrument Co.

STUFF CHESTS
Downingtown Mfg. Co.
E. D. Jones & Sons Co.
Moore & White Co.
Rice Barton Corporation
Shartle Brothers Machine Co.
Valley Iron Works Co.

SUCTION BOXES
Black Clawson Company
Downingtown Mfg. Co.
E. D. Jones & Son Co.
Moore & White Co.
Rice Barton Corporation
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.

SUCTION ROLLS
Beloit Iron Works

SULPHITE SPECIALTIES
Canadian Newsprint Supply Co.

SULPHUR
Texas Gulf Sulphur Co.

SULPHUR BURNERS
Valley Iron Works Co.

SULPHUR DIOXIDE
American Cyanamid Company, Calco Chemical Div.
Ansul Chemical Co.
Virginia Smelting Co.

SUPERCALENDERS
The Appleton Machine Co.
B. F. Perkins & Son, Inc.

SYNTHETIC LATICES
American Cyanamid Company, Industrial Chemicals Division
B. F. Goodrich Chemical Co.
The Goodyear Tire & Rubber Company
Naugatuck Chemical Division of U. S. Rubber Co.
Nopco Chemical Co.

TAKE OFF UNITS
Dilts Machine Works (Kohler Systems)

TALC
American Cyanamid Company, Industrial Chemicals Division
Vanderbilt Co., R. T.

TANKS
Chicago Bridge & Iron Co.
Kalamazoo Tank & Silo Co.
The Marietta Concrete Corp.
B. F. Perkins & Sons, Inc.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.

TEARING TESTERS
Thwing-Albert Instrument Co.
Testing Machines, Inc.

TENSILE TESTERS
Bunge Pulp & Paper Co.
Thwing-Albert Instrument Co.
B. F. Perkins & Son, Inc.
Testing Machines, Inc.
Nopco Chemical Co.

THICKENERS, DECKERS AND SAVEALLS
The Appleton Machine Co.
Bird Machine Company
Carthage Machine Co.
Chicago Bridge & Iron Co.
Dilts Machine Works
Downingtown Mfg. Co.
Moore & White Co.
D. J. Murray Mfg. Co.
Ross Paper Machy. Corp.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Valley Iron Works Co.

TITANIUM
American Cyanamid Co., Calco Chemical Div.
E. I. du Pont de Nemours & Co.
Titanium Pigment Co.
R. T. Vanderbilt Co.

TOOLS
Walworth Company

TRACTORS AND TRUCKS
Clark Equip. Co. of Industrial Truck Div.
Elwell Parker Elec. Co.
Towmotor Corp.

TRANSMISSIONS
Alexander Bros. Belting Co.
Dodge Mfg. Corp.
Jeffrey Mfg. Co.
Link Belt Company
Lovejoy Flexible Coupling Co.
Stephens-Adamson Mfg. Co.

TRAPS
Crane Co.
Johnson Corporation
Shartle Bros. Mch. Co.
Stickle Steam Specialties Co.

TUBE MILLS
F. L. Smidth & Co.

TUBES
Babcock & Wilcox Co.
National Tube Co.

TUBING MACHINES
Dilts Machine Works

TUBING, MECHANICAL
National Tube Co.

TUBS
Shartle Brothers Machine Co.
Valley Iron Works Co.

TURBINES
Allis-Chalmers Mfg. Co.
De Laval Steam Turbine Co.
General Electric Company

UNWINDERS
Dilts Machine Works (Kohler Systems)
Egan, Frank W., & Co.
Rice Barton Corporation
John Waldron Corp.

USED EQUIPMENT
Gibbs-Brower Co.
Thomas W. Hall Co.
J. J. Ross Company
Ross Paper Machy. Corp.
Shartle Brothers Machine Co.

V-BELTS
Lovejoy Flexible Coupling Co.

VALVES
The Bagley & Sewall Company
Crane Company
Dilts Machine Works
Fabri Valve Co. of America
E. D. Jones & Sons Co.
Magnus Metal Corp.
D. J. Murray Mfg. Co.
William Powell Co.
Record Fdy. & Mch. Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Stickle Steam Specialties Co.
Valley Iron Works Co.
Walworth Company

VATS
Beloit Iron Works
Rice Barton Corporation

WASHERS
The Bagley & Sewall Company
Bird Machine Company
Downingtown Mfg. Co.
Gibbs-Brower Company, Inc.
E. D. Jones & Sons Co.
Moore & White Co.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Valley Iron Works Co.

WASTE TREATING EQUIPMENT
Hungerford & Terry, Inc.
Jeffrey Mfg. Co.

WATER CONDITIONING
Calgon, Inc.
General Dyestuff Corp.
Hungerford & Terry, Inc.
National Aluminate Corp.
The Permutit Company
The Sandy Hill Iron & Brass Works

WATER DISPERSIONS
American Cyanamid Company Industrial Chemicals Division
Naugatuck Chemical Division of U. S. Rubber Co.
Rohm & Haas Co., Resinous Products Div.

WATER FILTERS
Holyoke Machine Co.

WATER FINISH EQUIPMENT
Dilts Machine Works

WATER PENETRATION TESTER
Thwing-Albert Instrument Co.
Williams Apparatus Co., Inc.

WATER SOFTENERS
Hungerford & Terry, Inc.
The Permutit Company
Wyandotte Chemicals Corp. Michigan Alkali Div.

WATER VAPOR CUPS
Thwing-Albert Instrument Co.

WAXES
Bunge Pulp & Paper Co.

WAXING MACHINERY
Black Clawson Company
Dilts Machine Works
Frank W. Egan & Co.
Gibbs-Brower Company, Inc.
The Mayer Machine Co.
Potdevin Machine Co.
Shartle Brothers Machine Co.
Waldron Corp., John
Weber, Herman G.

WEB TENSION CONTROL
Dilts Machine Works (Kohler Systems)
Egan, Frank W., & Co.
John Waldron Corp.

WELDING EQUIPMENT
General Electric Company
Walworth Company

WET MACHINES
The Bagley & Sewall Company
Black Clawson Company
Carthage Machine Co.
Downingtown Mfg. Co.
Gibbs-Brower Company, Inc.
Moore & White Co.
Pusey & Jones Company
Rice Barton Corporation
J. J. Ross Company
Ross Paper Machy. Corp.
The Sandy Hill Iron & Brass Works
Shartle Brothers Machine Co.
Smith & Winchester Mfg. Co.
Valley Iron Works Co.

WET STRENGTHENING AGENTS
Plaskon Div.
Libbey-Owens-Ford Glass Co.
Reichhold Chemicals, Inc.

WETTING AGENTS
American Cyanamid Company Industrial Chemicals Division
Diamond Alkali Co.
General Dyestuff Corp.
Monsanto Chemical Company
Nopco Chemical Co.
Plaskon Division Libbey-Owens-Ford Glass Co.
Rohm & Haas Co.
Wyandotte Chemicals Corp. Michigan Alkali Div.

WHITE WATER TREATING EQUIPT.
Hungerford & Terry, Inc.
The Permutit Company
The Sandy Hill Iron & Brass Works

WINDERS & REWINDERS
The Bagley & Sewall Company
Beloit Iron Works
The Appleton Machine Co.
Black Clawson Company
Kohler Systems
Cameron Machine Co.
Dietz Machine Works
Dilts Machine Works
Downingtown Mfg. Co.
Frank W. Egan & Co.
Gibbs-Brower Company, Inc.
Thomas W. Hall Co.
Hudson-Sharp Mch. Co.
Jagenberg-Werke Akt. Ges.
Langston Co., Samuel M.
Moore & White Co.
Potdevin Machine Co.
Pusey & Jones Corp.
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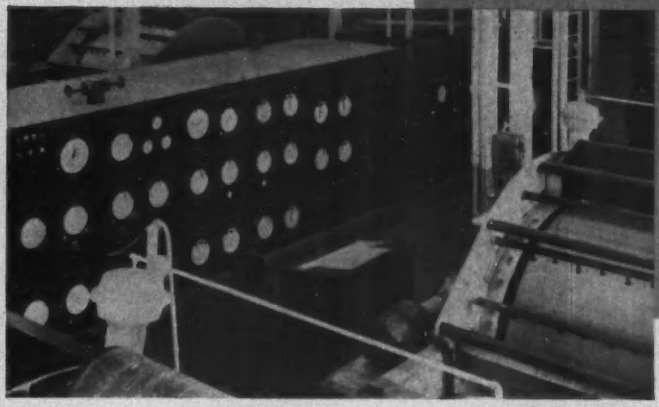

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